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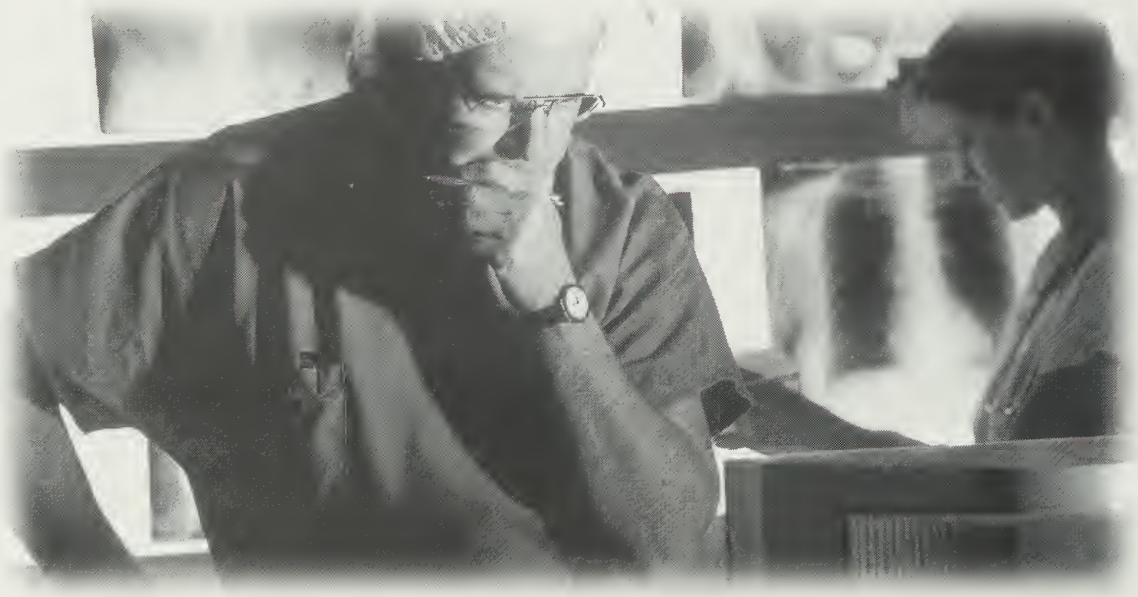
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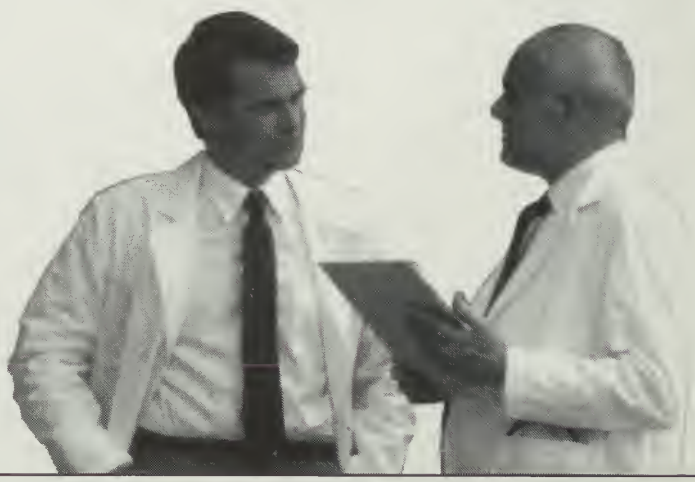
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Cover photo: **Mount Saint Michael, Cornwall**
by John B. DeHoff, M.D.
First place, color category
Med Chi 1995 annual photo contest

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To enter the 1996 Med Chi photo contest, see page 15.

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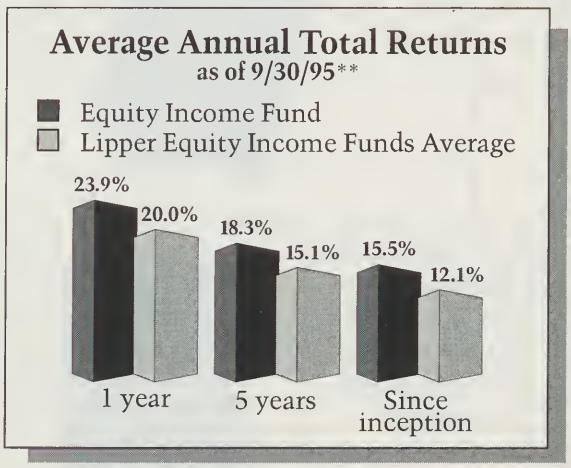
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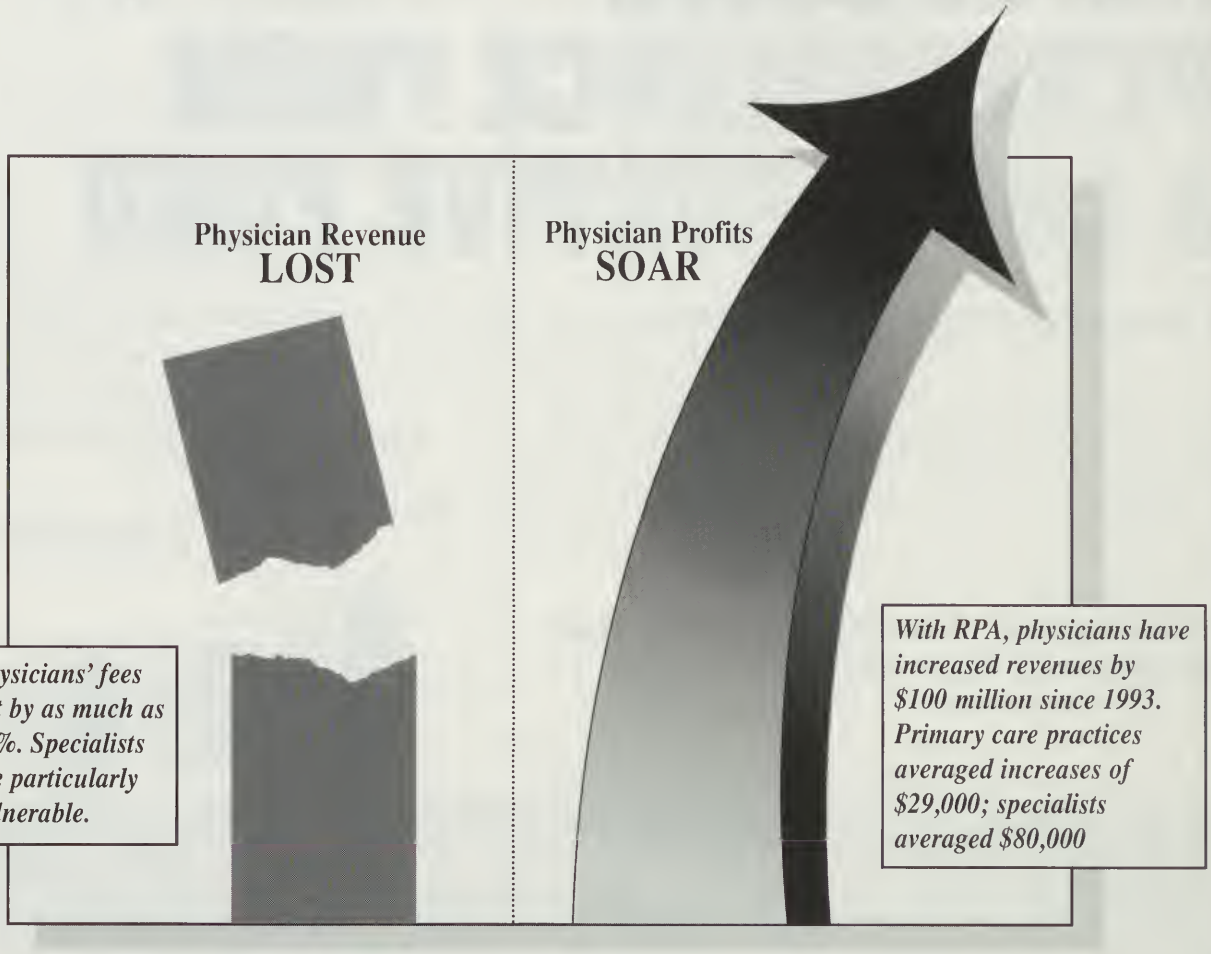


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Chief Executive Officer's Newsletter

January 1996

President's Western Regional Meeting

The President's Western Regional Meeting, to be held at the Hagerstown Sheraton Inn on Thursday, February 29, will feature a "down to earth" discussion about the following topics:

Physician Controlled Managed Care
Maryland Legislative Outlook for 1996
HMO Quality Assurance
Practice Parameters

In addition, Congressman Roscoe Bartlett, of the 6th Congressional District, has been invited to speak about federal Medicare and Medicaid issues. Meeting registration begins at 5:30 p.m., dinner will be served at 6:00 p.m., and the program will start at 8:00 p.m. If you are interested in attending the regional meeting, contact Joan Mannion or Carol Doctrow in the Med Chi education department at 800-492-1056. The deadline for reservations is February 23.

Med Chi Annual Meeting

The 1996 Med Chi Annual Meeting will be Thursday, April 25, through Saturday, April 27, at the Turf Valley Hotel & Country Club in Ellicott City, Maryland. To make your room reservations, cal Turf Valley at 410-465-1500 and indicate that you will be attending the Med Chi Annual Meeting. Room rates are $75.00 for a single and $85.00 for a double. Reservations must be made by Friday, March 8, 1996.

1996 National Leadership Conference

"The Dynamic Face of Health Care" will be the focus of the American Medical Association's 1996 National Leadership Conference scheduled for Sunday, March 10, through Wednesday, March 13. The conference, to be held in Washington, DC, is the leading forum to participate in addressing the issues facing medicine through an interactive dialogue on critical economic, social, and political viewpoints. Participants can attend sessions that offer the opportunity to understand the challenges facing medicine today and learn strategies to respond to the evolving marketplace.

In addition to the educational sessions, attendees will have available to them a full slate of activities including the chance to meet with elected officials on Capitol Hill and the opportunity to interact with colleagues. If you are interested in attending the conference, call the AMA Registration Services at 312-464-5826.

Medical student section to collect eyeglasses

During the week of January 22-26, 1996, the medical student section of Med Chi will be conducting a used eyeglass drive to benefit the needy. In addition to old eyeglasses, the students will also be collecting sunglasses, cataract glasses, hearing aids, old jewelry, single earrings, and old watches for the drive. Collection boxes will be placed in the students' main train-

ing hospitals, which include: The Johns Hopkins Hospital, University Hospital, VA Medical Center, and Bethesda Naval Hospital. A collection box will also be in the Med Chi office. Please donate an old pair of eyeglasses or piece of jewelry and support the students in their effort to help the less fortunate.

CHAMPUS requires preauthorizations

Obstetricians, gynecologists, and family practioners providing OB/GYN services to CHAMPUS beneficiaries must obtain preauthorization for abortions, hysterectomies, and cesarean sections when performed on an *inpatient* basis. Authorization must be obtained not more than 30 days and not less than two working days prior to the admission/procedure. If the admission/surgery is urgent, providers have up to two working days after the admission/procedure to obtain authorization.

In Maryland, preauthorization for these types of cases is obtained by calling PRO-West, a professional review organization, at 800-783-2477, Monday through Friday from 5:00 a.m. to 5:00 p.m. Providers also have the option to fax preauthorization requests to 800-431-2565. If a provider performs an inpatient abortion, cesarean section, or hysterectomy prior to obtaining the required authorization, the case may be subject to CHAMPUS retrospective (paid claim) review and payment penalties. For more information regarding this program, contact PRO-West at 800-783-2477.

NCI warns against extended tamoxifen use

In early December the National Cancer Institute (NCI) mailed out a clinical announcement recommending that physicians limit tamoxifen use in the treatment of early breast cancer to five years in clinical practice. The clinical announcement, mailed to 22,000 oncologists nationwide, discouraged physicians from administering tamoxifen for more than five years after surgery because no additional benefits were found for women taking the anti-estrogen. NCI took action based on a decision by the National Surgical Adjuvant Breast and Bowel Project (NSABP) to stop a clinical trial in which investigators were comparing five to 10 years of tamoxifen use after surgery in women with node-negative, estrogen receptor-positive breast cancer. Investigators found no additional benefit to continued use of the drug and also raised the possibility that prolonged use of tamoxifen might even be detrimental.

However, NCI officials stressed that tamoxifen does offer women with the early stages of breast cancer a proven survival benefit when taken as an adjuvant or additional therapy for up to five years following breast cancer surgery. "Tamoxifen remains one of our most potent weapons against breast cancer and these new results should in no way diminish its use, whenever appropriate, in women with early stage breast cancer," said Jeff Abrams, M.D., of NCI's Division of Cancer Treatment and Diagnosis Center. If you would like a copy of NCI's clinical announcement on tamoxifen, please contact Med Chi's Beth Schwartz at 410-539-0872 or 800-492-1056, ext. 308.

Maryland's baby hotline

In order to provide better access to obstetric and gynecologic health services, the Maternal and Child Health Hotline was established in Maryland at the urging of the American College of Obstetricians and Gynecologists and the federal Maternal and Child Health Bureau. Operated by the Maryland Department of Health and Mental Hygiene, the number for the toll-free telephone hotline is 800-456-8900. Available Monday through Friday from 8:30 a.m. to 5:00 p.m., the hotline addresses the needs of pregnant women and offers information related to maternal and child health services. The hotline provides information on and referrals for enrollment in Medicaid, WIC programs, family planning, pregnancy testing services, and substance abuse treatment programs. If you would like a copy of the hotline information, contact Lisa Smith, program specialist, at 202-863-2450.

Panel urges change for health providers

A task force of prominent preventive health specialists recommended that doctors and nurses offer more frequent patient counseling on personal health and safety habits, significantly change the use of some screening tests, and ensure that several newer immunizations are routinely provided. Many of the recommended changes in the 1995 "Guide to Clinical Preventive Services, 2nd Edition" reflect new evidence about important health benefits of selected preventive services. Other changes reflect a more critical look at the balance of harms and benefits of screening tests now widely used. The report also reaffirms many of the disease and injury prevention practices recommended in 1989.

The following are examples of new or revised recommendations from the task force report.

- Favors flexible sigmoidoscopy and/or annual fecal occult blood testing to screen for colorectal cancer.
- Favors targeting routine screening for high cholesterol and other lipid disorders to men aged 35 to 65 and women 45 to 65, and others at increased risk for heart disease.
- Favors the intake of daily multivitamins with folic acid for all women who can become pregnant (to prevent neural tube defects).
- Favors the routine vaccination of all newborns, children, adolescents, and young adults against hepatitis B.
- Favors routine vaccination of children against chickenpox.
- Favors counseling parents of young children on measures to reduce the risk of household and recreational injuries.
- Favors the discussion of possible estrogen therapy with all postmenopausal women.
- Opposes routine screening for prostate cancer with prostate specific antigen (PSA) or digital rectal examination.
- Opposes routine urine tests for early detection of bladder cancer or asymptomatic urinary tract infection.

To order a printed copy of the "Guide to Clinical Preventive Services, 2nd Edition," contact the Superintendent of Documents, U.S. Government Printing Office, at 202-512-1800; the stock number is 017-001-00525-8.

New chairperson of AMA Board

The AMA announced several changes to its Board of Trustees during the Interim Meeting. P. John Seward, M.D., named AMA executive vice president designate in October, resigned his position as chairperson of the AMA Board. He will remain a board member until formally replacing Executive Vice President James S. Todd, M.D.

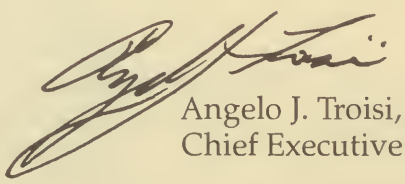
Nancy W. Dickey, M.D., a family physician from Richmond, Texas, will serve as chairperson of the board; Thomas R. Reardon, M.D., a general practitioner from Boring, Oregon, was selected vice-chairperson; Randolph Smoak, Jr., M.D., a surgeon from Orangeburg, South Carolina, will serve as secretary/treasurer; and Timothy Flaherty, M.D., a radiologist from Neenah, Wisconsin, will join D. Ted Lewers, M.D., a nephrologist from Easton, Maryland, on the AMA's Executive Committee.

Arthritis study needs volunteers

Johns Hopkins is seeking volunteers to test the first drug intended to treat the cause of rheumatoid arthritis rather than the symptoms. The multicenter study uses a synthetic vaccine designed to prevent further tissue destruction by causing the immune system to shut down T cells suspected of attacking the joints, according to Alan Matsumoto, M.D., an assistant professor of medicine who is directing the phase II clinical trial at Hopkins. The 32-week trial, sponsored by the Immune Response Corp., a biopharmaceutical company, needs 18 patient/volunteers with moderate or severe rheumatoid arthritis. If you know of individuals interested in volunteering for the study, the contact is nurse coordinator Mary Bardman at 410-550-2629.

Annual Med Chi Photo Contest

Med Chi physicians and Alliance members are encouraged to enter the 16th Annual Med Chi Photo Contest. First and second prizes will be awarded in both color and black-and-white categories. All photographs submitted for the contest will be displayed during the 1996 Med Chi Annual Meeting in April at the Turf Valley Hotel & Country Club in Ellicott City, Maryland. For complete contest rules, see page 15 of this issue.



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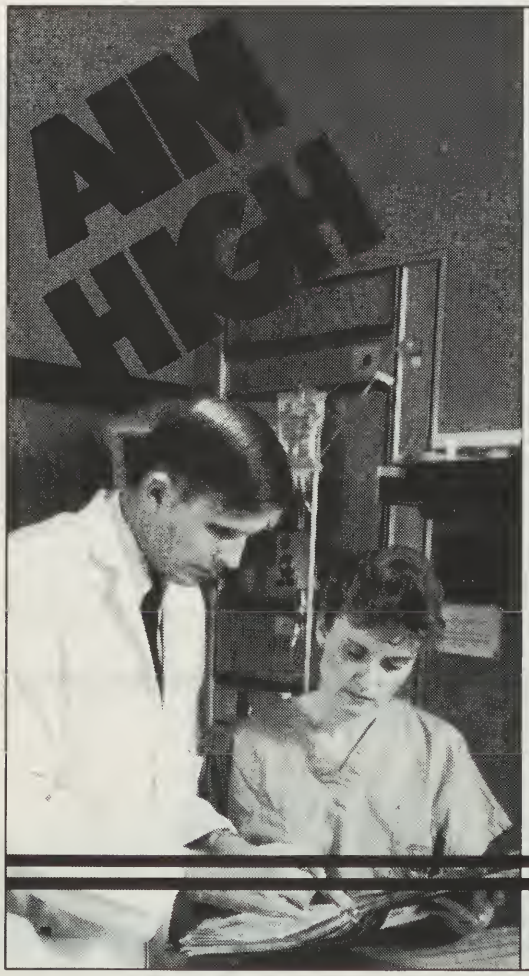
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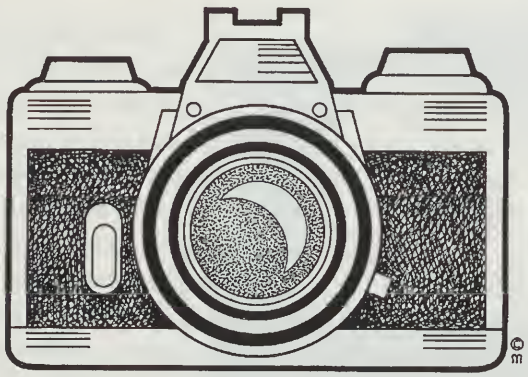
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AIR FORCE

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Two categories: black & white OR color with first and second prizes awarded in each category.



Deadline for entries is Friday, March 15, 1996.

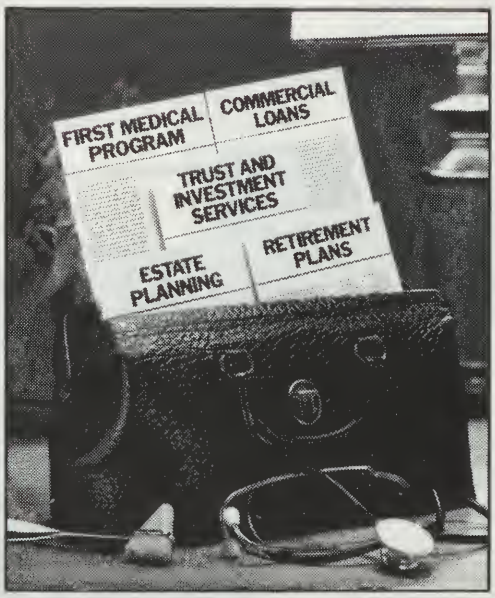
All entries will be displayed at the 1996 annual meeting at the Turf Valley Inn and Convention Center, Ellicott City.

Photo Contest Rules:

Eligibility: All members of Med Chi and members of the Alliance may enter. Professional photographers may not enter.

1. Photographs may be submitted in two categories: black and white OR color.
2. Limit: three entries per person.
3. Prints only; prints smaller than 8" x 10" or larger than 11" x 14" will not be accepted. If your favorite shot is a slide, you must have a print made within this size range to enter the contest.
4. Entries must be matted or dry mounted. No framed photographs will be accepted.
5. Entries must have name, address, and telephone number attached to the back of each photograph.
6. Entries may be mailed or brought to Med Chi, 1211 Cathedral Street, Baltimore, MD 21201 by 5:00 pm on March 15.
7. Photographs entered in the contest will be on display at the 1996 annual meeting.
8. Prizes will be awarded to the first and second place winners in each category.
9. Winners will be announced at the annual meeting of the Medical and Chirurgical Faculty, April 25-27, 1996.
10. Photographs will not be mailed back. They may be claimed at the registration desk at the close of the annual meeting at noon on April 27 or at Med Chi thereafter.
11. Med Chi does not guarantee against loss or damage of any kind to the photographs submitted to the contest.

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Speak Out

Future doc 2025

The following summary was found in the introduction of a book entitled A History of Health Care *published in 2025.*

The beginning of the end was in 1965, when the federal government (now known as FEDGOV) created Medicare. BF3s or Body Fixers (formerly called physicians) who opposed it as a first step to socialized medicine were correct. At first, BF3s did very well. But as costs raced ahead of inflation, drastic cutbacks occurred. The fact that the Medicare program itself was the greatest catalyst of medical inflation made no difference. In 1985, Medicare fixed office and surgery fees (MAACs or Maximum Actual Allowable Charge). By 1997, BF3s were being penalized for ordering certain tests for the elderly. Capitation programs resulted in many BF3s being forced out of their practices. Solo private practice ceased to exist except in certain rural areas. Those BF3s who continued to practice medicine did so as members of large and efficient groups or networks.

During the late 1990s, market forces finally caught up with medicine. Global competition created incentives for business to seek lower cost alternatives for medical care. BF3s, who had traditionally operated outside supply and demand systems, were bewildered by HMOs, IPAs, PHOs, MSOs, and competition from their former allies, hospitals (now known as ESPs or End Stage Portals). Insurance companies (collectively known as CORPCARE) bought ESPs and large medical practices to introduce cost efficiencies and networks. Many BF3s worked in the shelter of CORPCARE. Flat salaries became the norm. The glut of BF3s, encouraged by the government for decades, kept salaries low and discouraged good students from taking up medicine.

By 2001, only one quarter of the 600,000 licensed U.S. BF3s in practice in 1980 were seeing patients. The others had retired or were attracted to AIDS research, selling computers and medical software, waiting on tables, or in some cases selling used cars or practicing law. Those BF3s with MBA degrees had the best opportunities for dealing with the new paradigms. Some medical schools offered combined MBA and medical degrees. By 2010, the number of medical schools dropped by half of those in existence in 1970. U.S. graduates from medical schools declined to 20% of that in 1999. Yet, from 1965, the U.S. population increased by 4% per year to 310,000,000 by 2025. The increase in volume of medical care was resolved by two disparate trends: the computer/information age and para-professionals.

Reprints: Michael J. Dodd, M.D., 600 Ridgely Ave., Suite 132, Annapolis, MD 21401

Speak Out

Computers

Computer technology exploded during the last three decades of the twentieth century. At the end of World War II, computers were in their infancy. A computer could perform simple math calculations in a few minutes, but occupied a 10 x 12 foot room. A mere fifty years later, a 1 x 2 inch computer chip could perform all the calculations throughout the history of mankind in about 30 seconds. The most complex equations known—those involving weather forecasts—could be completed in 20 nanoseconds. Despite these fantastic accomplishments, which rivaled the intricacy of the human brain, the cost of the technology continued to decline during the second millennium. The new Mega-Bit chip, the world's fastest, could be purchased by any household for the cost of a 10-speed bicycle. Installed in the household TV-COMP-FONE (TCF), it allowed children to complete first grade through college without leaving home. Wills, divorce documents, stock purchases, FUNI-MONI debit card transactions, grocery shopping, travel reservations—all took just a few seconds.

Medical diagnosis and treatment also became available on the TCF during the last few years of the twentieth century. Microseconds after a person's symptoms were fed into the TCF, a differential diagnosis appeared on the screen. Lab studies were recommended. Home Body Analyzers (HBAs) appeared in TCFs in 1998. By inserting a finger into a computer port, a person could have a painless blood sample taken and analyzed in five seconds. Sophisticated scans still required a visit to the MEDCLIN (BF3 and 2 offices). Before the patient left the MEDCLIN, the new data were entered into the national MEDIBANK and a diagnosis was finalized. The patient's diagnosis card (MEDX) was updated (MEDX cards were carried for life and contained each individual's entire medical history) so that it could be inserted into a wall unit (QUIKPHARM) that dispensed the appropriate drugs. QUIKPHARMS appeared in drug stores, shopping malls, and office buildings. Any costs not borne by the CORPCARE policy were billed to the patient's FUNI-MONI debit card.

BF3s were consulted only if the MEDX was not correct (a rare event) or if surgery was necessary. Preliminary consultations with a BF3 were via video monitor on the TCF. Only occasionally would a patient actually visit a BF3. Hence, BF3s spent a large part of their day interacting with patients on TCFs.

Paraprofessionals

The rise of paraprofessionals occurred at the dawn of the millennium. Before 2000, those who completed medical school were called physicians or doctors. There was an assortment of other health-related providers of care broadly known as paraprofessionals. These included nurses, physical thera-

pists, chiropractors, optometrists, technicians, and the like. Through the last decades of the twentieth century, the paraprofessionals gradually took over, by legislative fiat, many of the tasks of physicians. There are now three BF categories: BF1s include technicians, physical therapists, nursing assistants, etc.; BF2s are nurses, pharmacists, podiatrists, chiropractors, and optometrists; and BF3s are physicians and dentists.

Because of considerable cost savings associated with BF1s and BF2s, the role of BF3s was reduced dramatically. Many studies were carried out by the FEDGOV which demonstrated the practicality of and cost savings from the BF1s and BF2s. Quality of care did not decline and in some cases was demonstrated to improve. As noted, BF3s were required only for rare diagnostic dilemmas and major surgical interventions (SURGIMAX). For cost reasons, even certain procedures were passed over to BF2s (SURGIMIN) with a BF3 in attendance in the operating room or available nearby. By 2020, a typical surgicenter had 10 operating rooms with 30 or more BF2s performing surgery and administering anesthesia with one BF3 surgeon and one BF3 anesthesiologist in attendance. Some routine surgery was performed in the patient's home or office.

Social effects

Computers and paraprofessionals not only changed medical practice forever, they caused a drastic reduction in the number of ESPs (hospitals). In the past, ESPs were the most expensive facilities in which to render medical care. Colossal waste occurred and for years, no cost controls were required by the FEDGOV or the predecessors of CORPCARE. During the decade after 1995, the number of ESP beds dropped from 1 per 1,500 population to 1 per 25,000 (or about 40 beds for a city of 1 million). Today, ESPs remain the last refuge of the terminally ill. They also play a role in the training of BF3s and are places for the most sophisticated surgical procedures.

During the early years of the twenty-first century, Final Care Facilities (FCFs), formerly called nursing homes, grew rapidly. Many ESPs which survived were able to do so by converting to FCFs. An ESP usually converted 95% to 99% of its beds to FCFs and used the remainder for SURGIMAX patients. With those over the age of 95 being the fastest growing segment of the population, independent and CORPCARE FCFs could not be constructed rapidly enough. Many FCFs were built in retirement communities in the south and southwest. Fortunes were made by those BF and CORPCARE leaders who anticipated the growth of FCFs.

Between 1998 and 2005, cigarette smoking was outlawed. Any citizen could report a smoker and would be rewarded by a reduced CORPCARE insurance rate. Offenders were fined for the first offense and thereafter had their CORPCARE insurance rates increased by 2% for each offense. By

Speak Out

2020, less than 1% of the population smoked and then only in secret. Taxes increased each year on alcohol so that a bottle of whiskey doubled in price every five years. Formerly illegal drugs such as heroin (FASTKICK) and cocaine (HIGHBOY) were legalized by 2005 and taxed and monitored by the FEDGOV (all personal and corporate income tax was eliminated in 1998 and replaced by sales and consumption taxes). Studies had shown these previously illegal drugs were actually less harmful than chronic cigarette smoking. Debates continued regarding an acceptable death rate from overdose. Those habituated to the drugs were unable to obtain CORPCARE insurance. After they were legalized, the crime associated with these drugs ceased and their use declined significantly.

Chronic diseases and their causes were approached in a similar fashion. Foods high in fats or cholesterol were taxed at a prohibitive rate. In 2010, for example, a "fat-free" hamburger at MacDonald's cost $15, whereas a traditional hamburger with 30 grams of fat cost $55, if you could find one. Only the wealthy could afford risky foods. Most of the cost differential was a tax (FATAX) that went to the FEDGOV to cover Medicare costs. These changes helped reduce the rates of cancer and heart disease and continued the trend to increase the life expectancy. In 1995, less than 1% of the U.S. population was 90 years of age or older. By 2020, 12% of the population was over 90. The Medicare eligibility age rose from 65 in 1995 to 75 in 2005. Most Americans worked into their eighth decade.

Birth rates declined until 1998, when the widespread use of in vivo fertilization allowed women to bear children until age 60. The first human transabdominal delivery through a uterine transplant in a male occurred in 2013. The FEDGOV recognized that without an expanding young population, its consumption tax base would disappear. In 2001, a tax was placed on abortions, to be paid by the patient and the BF3. Contraception was encouraged until a woman was married. The incentive was a reduced CORPCARE rate for single women who avoided pregnancy. Experiments with free oral contraceptives in soft drinks (CONTRACOLA), however, were unsuccessful.

New diagnostic technologies, cures for most cancers, genetic engineering, and artificial organs now allow us to control health as never before (the fastest growing boarded specialty is now Health Control). Rapid advances in surgical techniques, drug therapies, and preventive medicine have continued to the present.

One can only imagine what will take place in *our* future.

Michael J. Dodd, M.D. (BF3)
Dr. Dodd is the senior partner in an ophthalmology group with offices in southern Maryland and Annapolis. ■

LETTERS TO THE EDITOR

Prevalence of psychiatric disorder alone versus substance abuse/dependence in a Baltimore City public psychiatric hospital

Substance abuse/dependence may be the most important comorbid disorder in patients admitted to psychiatric facilities.[1-7] Three years ago, I reviewed 50 consecutive discharges from my acute inpatient general psychiatry service. Results showed that 70% of the admissions to our public psychiatric facility were "dual diagnosis" patients.[8] Since then, I have had the impression that the prevalence of substance abuse/dependence has increased and that a substantial number of patients are admitted who later turn out to be suffering from substance abuse/dependence alone. If so, people are not getting needed services and scarce resources are being used inappropriately.

To determine the prevalence of admissions for psychiatric disorder alone versus substance abuse/dependence, I again reviewed 50 consecutive patients (52 admissions as 2 patients were admitted 2 times) who were admitted to one of the general psychiatry units at the Walter P. Carter Center, a state public psychiatric facility in Baltimore associated with the University of Maryland School of Medicine. We serve a socially disadvantaged catchment area of more than 160,000. The facility policy is to not admit those with a primary diagnosis of substance abuse disorder or those with private health insurance or government medical assistance.

Study patients were divided into 3 categories: primary mental disorder(s) alone; substance abuse/dependence alone; and dual diagnosis (i.e., substance abuse/dependence plus another significant mental disorder). Because a significant minority of the dual diagnosis patients had substance abuse/dependence and a personality disorder diagnosis alone, the dual diagnosis category was subdivided into patients with substance abuse/dependence plus significant personality disorder alone and patients with substance abuse/dependence plus a significant non-personality mental disorder (e.g., schizophrenia or mood disorder). The second subcategory could also include a personality disorder, however.

Of the 50 patients, 18% were not drug users (primary mental disorder alone); 28% were only drug users (substance abuse/dependence alone), and 54% had a dual diagnosis. Of those with a dual diagnosis, 22% (12% of the entire sample) also had a prominent personality disorder alone; 78% (42% of the entire sample) also had a non-personality mental disorder.

Compared to those with a primary mental disorder alone, those who only used drugs were more often male (85.7% vs 33.3%), younger (32.1 vs 39.1 years old), had much shorter lengths of stay (7.2 vs 49.9 days), and were more likely to be admitted voluntarily (71.4% vs 55.6%.) Patients in the dual diagnosis group tended to fall between those in the other groups. Those with psychiatric disorder(s) alone showed the most variability. In addition to being mostly women, the group showed significantly greater variation in age (range, 27 to 67 years) and length of stay (range, 1 to 162 days).

The present study indicates that the category with the smallest number of admissions was that of a primary mental disorder alone (18%), whereas 54% of those admitted were judged to have dual diagnosis—a group that requires integrated treatment programs.[3,9] It is also alarming that 28% of admissions were determined to have no psychiatric diagnosis other than substance abuse/dependence. If one includes in this group patients whose only mental disorder is prominent personality disorder, the percentage increases to 40%.

These results indicate that many people are not only not getting the help they need in psychiatric facilities, but they are also using

scarce mental health resources inappropriately. Much of the problem stems from the lack of substance abuse services, especially for the indigent. The people are directed to us or come themselves, presumably for a variety of reasons: safer or easier detoxification, a safe place to be, food and shelter, and drug treatment. They often tell us they knew or were told what to say to get admitted. They usually stay a short time. Despite the availability of addictions counselors and some addiction groups, the people who come to our facility apparently feel the psychiatric hospital is not for them. They also appear to feel staff frustration and leave unchanged. Results of the present study indicate the problem may be much greater than previously recognized.

I challenge both the Maryland Department of Health and Mental Hygiene and the Alcohol and Drug Abuse Administration to work together to deal with this problem more effectively. I also encourage investigators elsewhere to look at their own samples and see if this problem is widespread, as I believe it is.

Daniel D. Storch, M.D.
Currently, medical director, Howard County Community Mental Health Center

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Programs need to educate youth about drugs, sex, and HIV

In the spring of 1995, I had the opportunity to do a presentation on substance abuse education to six 8th grade science classes at a middle school in Baltimore County. The student body, which is approximately 91% minorities and 9% white, is drawn from a highly diversified community. Incomes range from low to high and housing patterns include apartments, townhouses, single family homes, and at least one development of low-cost housing. Many students come from single parent homes or live with foster parents or guardians.

For each class I passed out a brief survey that asked about use of alcohol, cigarettes, and marijuana. I told the students to fill it out honestly, with no names, and to fold it in half for collection. Results of the questionnaire showed that the students (53 boys, 77 girls) had strong negative feelings about cigarettes, but my discussions with them indicated many were curious about marijuana. Although they considered cigarettes to be dangerous and smelly, they did not have the same negative images about smoking marijuana. One student who asked about chemicals in cigarettes thought that marijuana was "pure." The students were surprised to learn that one marijuana cigarette has the same amount of carcinogens as 1½ packs of cigarettes. I had the impression that the majority of the students would welcome the opportunity to smoke marijuana.

It would appear that although anti-drug information has been aimed at this population for many school years, that information is not necessarily going to prevent use. In the early teen years, there is interest in experimentation with alcohol and marijuana. What is not openly addressed is how sexually active this population is. School staff indicated to me that up to 50% of the population may be sexually active. In the 8th grade there were at least 6 known abortions during the 1994-1995 school year. The students varied widely in the amount of information they knew about HIV. Future programs need to address responsibility and decision making about drugs and sex and their relationship to HIV.

Randy S. Berger, M.D.
Director, AIDS Division
Baltimore County Department of Health

More on women in organized medicine

Jane H. Short well reminds us that the recognition of the accomplishments of women in medicine is relatively new (*Md Med J* 1995;44:709–710). Their presence in the medical field, however, is not, and history underscores this observation.

Early on, most women were relegated to caring for the basic needs of the home and child rearing. Indeed, in a lengthy editorial in a medical journal of 1855, the unsigned authors opined that women were not suited to the practice of medicine. That profession, they said, demanded the exercise of the highest intellectual power, which was beyond the female capacity. The authors concluded that women would be better off in the home.

The struggle of women to free themselves from the home environment began to finalize about fifty years ago. Since then, the percentage of women in medicine has increased substantially as prejudice has gradually eroded.

Maryland, among other states, was slow to recognize the talents of women physicians. A change did occur when funds were raised for the Johns Hopkins medical school. Women whose previous training had been equal to that of men had to be considered for admission on the same basis as men.

Med Chi, founded in 1799, was deliberate in recognizing the medical skills of women. In 1885, a constitutional alteration, reported in the transactions, changed the word *gentlemen* to the word *person.* Although Amanda Taylor Norris, M.D., had graduated from the Woman's Medical College of Pennsylvania in 1880, and was associated in a teaching capacity with the Woman's Medical College of Baltimore, she was not accepted as a Med Chi member until 1886, after the modification was made. Anna Louise Kuhn, M.D., joined Med Chi in 1889, and Mary Sherwood, M.D., did so in 1892.

There have been few women officers of Med Chi, although women now number 827 (12.3%) of the total membership of 6,460. Mary Sherwood, M.D., was the first woman to hold office (vice president, 1898–1899). Katherine Borkovich, M.D., served as second vice president (1972) and was a member of the council (1977 to 1980). Carolyn H.S. Pincock, M.D., was first vice president in 1973. Carol Garvey, M.D., was secretary from 1991 to 1993, and treasurer from 1994 to 1995.

Surely, the intellectual and professional potential of the women members of Med Chi would recommend them for higher office in the foreseeable future.

Joseph M. Miller, M.D.
Timonium, Maryland

Appreciate

The purpose of this letter is to convey to all—members of Med Chi and the Baltimore City Medical Society, and to all others—that their efforts are appreciated. The words *appreciation* and *excellence* deserve profound consideration. No matter what level of society, there are always individuals who would be encouraged, stimulated, and made happier if it was made known to them that they are appreciated. I do not know of a word that is less used.

Recently, while attending Hopkins' medical and surgical grand rounds, I appointed myself as a spokesperson for the attendees to express to the presenters and those responsible for grand rounds how excellent these presentations have been over the years. And there is no question that my expression of appreciation was appreciated, because it was followed by a standing ovation.

Samuel Morrison, M.D.
Baltimore, Maryland

Wanted: ethical dilemmas

I am working on a book on medical ethics and would like to enlist the help of other physicians to answer the following question: Have you ever faced an ethical dilemma, and if so, how did you resolve it?

I am interested in all aspects of medical ethics: human experimentation, reproductive technology, abortion, medical treatment of the uninsured and poor, malpractice, physician-assisted suicide, the right to die (why some physicians do not honor living wills), genetic counseling, genetic manipulation, euthanasia, organ transplants, use of fetal tissue, or any other situation concerning an ethical dilemma. Please reply to:

Claude A. Frazier, M.D.
4C Doctors Park
Asheville, NC 28801

Beth Barnet, M.D., assistant professor of family medicine at the University of Maryland Medical Center, is the lead author of a study indicating that alcohol and drug use may be common among adolescent mothers during the first 4 months postpartum and that depression, stress, high support need, and peer group drug use are associated factors (*Pediatrics* 1995;96:659–666). **Michele D. Wilson, M.D.**, and **Alain Joffe, M.D., M.P.H.**, of the Johns Hopkins Medical Institutions, are among the coauthors.

Peter C. Rowe, M.D., John H. Yardley, M.D., Jay A. Perman, M.D., and **Hugh A. Sampson, M.D.**, are among the authors of a study to investigate whether unremitting symptoms of gastroesophageal reflux and biopsy abnormalities of the esophagus may be associated with the ingestion of certain foods. Results, reported in *Gastroenterology* (1995;109: 1503–1512), indicate that chronic gastrointestinal symptoms and histologic changes of the esophagus unresponsive to standard treatments for gastroesophageal reflux were improved by the use of elemental formulas. Dr. Perman is a professor of pediatrics, Dr. Yardley is a professor of pathology, Dr. Rowe is an associate professor of pediatrics, and Dr. Sampson is a professor of pediatrics at The Johns Hopkins University School of Medicine.

James H. Dorsey, M.D., chairman of the department of gynecology at the Greater Baltimore Medical Center, is the lead author of a study comparing the strength of laparoscopic knots with those used at laparotomy. Results indicate that when performing laparoscopic procedures that result in significant tension on suture lines, consideration should be given to using the stronger laparoscopic knots instead of the weaker Roeder knot (*Obstet Gynecol* 1995;86:536–540). **Howard T. Sharp, M.D.**, of the department of gynecology at the Greater Baltimore Medical Center, is among the coauthors.

C. Patrick Chaulk, M.D., M.P.H., and **Richard E. Chaisson, M.D.**, are among the authors of a study to evaluate community-based directly observed therapy (DOT) for tuberculosis (TB) control. The results indicate that in contrast to the national TB upswing during the 1980s, Baltimore experienced a substantial decline in TB following implementation of the community-based DOT. DOT facilitated high treatment completion rates and bacteriologic evidence of cure (*JAMA* 1995;274:945–951). Dr. Chaulk is from the departments of health policy and management and Dr. Chaisson is from the departments of epidemiology and international health at The Johns Hopkins University School of Hygiene and Public Health.

Neil R. Miller, M.D., Lee H. Monsein, M.D., M.P.H., Gerard M. Debrun, M.D., Rafael J. Tamargo, M.D., and **Haring J.W. Nauta, M.D., Ph.D.**, of the neuro-ophthalmology unit of the Wilmer Ophthalmological Institute and departments of neurosurgery and radiology at The Johns Hopkins Hospital, are the authors of a report describing the method and results of treatment of 12 consecutive patients with carotid-cavernous sinus fistulas (CCFs). They state that the transvenous approach to the cavernous sinus through the superior ophthalmic vein is a safe and effective treatment of both direct and dural CCFs that are not amenable to transarterial or other transvenous approaches (*J Neurosurg* 1995;83:838–842).

Henry N. Wagner, Jr., M.D., professor of nuclear medicine, radiation health sciences, environmental health sciences, medicine, and radiology, and director of nuclear medicine and radiation health sciences at the Johns Hopkins schools of medicine and public health, is the editor of *Principles of Nuclear Medicine*, published in 1995 by W.B. Saunders. The associate editor of the book is **Zsolt Szabo, M.D., Ph.D.**, an assistant professor of radiology at The Johns Hopkins University School of Medicine.

Terrence P. O'Brien, M.D., assistant professor of ophthalmology and director of ocular infectious diseases at the Wilmer Eye Institute in Baltimore, is the lead author of a study indicating that ofloxacin solution is as effective as fortified cefazolin and tobramycin solutions in the treatment of bacterial keratitis. (*Arch Ophthalmol* 1995;113:1257–1265).

Charles J. Yeo, M.D., John L. Cameron, M.D., Michael M. Maher, M.D., Mark A. Talamini, M.D., Keith D. Lillemoe, M.D., and **Henry A. Pitt, M.D.,** of the department of surgery at The Johns Hopkins Medical Institutions, are among the authors of a study indicating that pancreatic fistula is a common complication after pancreaticuduodenectomy, with an incidence most strongly associated with surgical volume and underlying disease. Their data do not support the hypothesis that pancreaticogastrostomy is safer than pancreaticojejunostomy or is associated with a lower incidence of pancreatic fistula (*Ann Surg* 1995; 222:580–592).

John M. Freeman, M.D., and **Eileen P.G. Vining, M.D.,** are the authors of an article on decision-making analysis in the diagnosis and treatment of childhood febrile seizures (*Am Fam Physician* 1995:52:1401-1406). Dr. Freeman is the Lederer professor of pediatric epilepsy at The Johns Hopkins University School of Medicine and Dr. Vining is an associate professor of neurology and pediatrics and associate director of the Pediatric Epilepsy Center at the Johns Hopkins Medical Institutions.

Frank J. Ayd, Jr., M.D., is among the authors of a review of available data on the use of psychopharmacotherapy in personality-disordered patients *(Psychiatric Annals* 1995;25: 614–620). Dr. Ayd is the editor of *International Drug Therapy Newsletter* and emeritus director of professional education and research at Taylor Manor Hospital in Ellicott City, Maryland.

Mark J. Krasna, M.D., is the lead author of a pilot study of the technical feasibility, safety, and accuracy of thoracoscopic and laparoscopic lymph node staging for patients with esophageal cancer. Results indicate that thoracoscopic staging can correctly predict thoracic lymph node status with high accuracy and aid in better defining T status (*Ann Thorac Surg* 1995;60:1337–1340). Dr. Krasna is an assistant professor of surgery and director of general thoracic surgery at the University of Maryland Medical Center.

David W. Eisele, M.D., an associate professor of otolaryngology-head and neck surgery at The Johns Hopkins University School of Medicine, is among the authors of a case report describing a recurrence of retropharyngeal liposarcoma associated with dedifferentiation into a lesion histologically similar to malignant fibrous histiocytoma (*Am J Otolaryngol* 1995; 16:331–340).

Oliver D. Schein, M.D., M.P.H., and **Eric B. Bass, M.D.,** are among the authors of a report based on a survey of ophthalmologists indicating there is substantial variation in preferred intraoperative cataract strategies in the United States (*Arch Ophthalmol* 1995;113: 1108–1112). Dr. Schein is an associate professor of ophthalmology and Dr. Bass is an associate professor of medicine at The Johns Hopkins University School of Medicine.

Neil M. H. Graham, M.D., is among the authors of a population-based study of immunization patterns in the cohort of children who entered public schools in Virginia in 1992. Although immunization coverage levels were uniformly high at school entry, only 58% of children were age-appropriately immunized at 24 months of age (*Pediatrics* 1995;96:439–446). Serious delays in vaccine administration were observed in all areas of Virginia before school entry. Dr. Graham is from the departments of epidemiology and medicine at The Johns Hopkins University School of Medicine.

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Factors affecting influenza vaccination among attendees at a senior center

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ABSTRACT: *Influenza is an important cause of morbidity and mortality in the elderly. We questioned attendees at a Baltimore County senior center that offered influenza vaccination about the factors that influenced their decision to receive vaccination. Of the 43 responders, 37 (86%) stated they already had received vaccination in 1994 or were planning to be vaccinated. Vaccinated seniors were more likely than nonvaccinated seniors to believe that they were susceptible to influenza and they were more likely to have had influenza vaccination recommended to them by their physician. Vaccinated seniors also were more knowledgeable about the influenza vaccine. Physician recommendation appears to be an important factor in the decision by seniors to receive influenza vaccination.*

Influenza is the fourth leading cause of death (along with pneumonia) in the elderly despite the availability of an inexpensive and efficacious vaccine.[1-6] Approximately 80% to 90% of the deaths attributed to pneumonia and influenza occur among those aged 65 or older.[7]

Influenza is an acute respiratory illness characterized by abrupt onset of fever, myalgias, sore throat, and a nonproductive cough. The disease is caused by type A or type B influenza viruses. Vaccination against influenza is recommended for adults aged 65 or older, nursing home residents, patients with chronic cardiac or pulmonary disease, patients with chronic metabolic diseases (e.g., diabetes mellitus, kidney failure), and immunosuppressed patients.[8] Despite these recommendations, estimates indicate that only 32% of the elderly and 20% of high risk patients are vaccinated yearly in the United States.[1,6,9-13]

Table 1. Models and variables used in the questionnaire

PRECEDE Model

Predisposing factors

- positive attitudes toward and accurate knowledge of influenza vaccinations
- obtaining the influenza vaccination the previous year
- having a yearly physical examination
- nonsmoking status

Enabling factors

- availability of transportation to the location of the influenza vaccination
- knowledge of availability of the immunization at the senior center
- funds to obtain influenza vaccination (prior to its becoming a covered benefit in 1993)

Reinforcing factors

- social support from friends, family, and health care providers in recommending influenza vaccinations
- belief in improved health of self and others by receiving influenza vaccination

Health belief model

- susceptibility to influenza
- perceived seriousness of influenza
- cost-benefit of vaccination
- the event that triggered individuals to obtain influenza vaccination

Ajzen-Fishbein model

- whether individuals plan to obtain influenza vaccination this year
- beliefs regarding the consequences of foregoing vaccination
- whether relevant others believe the respondent should receive vaccination and motivation to comply with those others

Often effective in preventing infection, influenza vaccine also helps prevent serious complications in those who contract influenza after vaccination. Serious complications and death are reduced by 70%, and vaccination prevents clinical infection in at least 30% of elderly patients.[8,14] Influenza vaccine has been found to be up to 80% effective in protecting the chronically ill elderly against hospitalization and death from acute respiratory disease during an influenza epidemic.[8,15-17]

Results of the Influenza Vaccination Demonstration Project for Medicare enrollees[9,18] indicate that influenza vaccination is cost effective, and vaccination became a covered Medicare benefit in 1993.[19] The U.S. Public Health Service has set a goal of immunizing at least 60% of the high risk population of the United States.[20]

Previous studies have identified many important factors that influence vaccination rates in the elderly. Some are unaware of the need for immunization.[21,22] Others believe the vaccine may cause the flu.[23] Fear of side effects and pain associated with immunization, perceptions of susceptibility to the flu, seriousness of the flu, and vaccine safety also influence patients' decisions.[24-26] Lack of knowledge about how to obtain vaccination and lack of transportation may be barriers.[24] Negative health behaviors (e.g., lack of seat belt use, obesity, smoking) have been associated with failure to receive immunization.[25] The most important factor associated with receiving vaccination is provider recommendation.[3,17,25]

To further understand why the elderly refuse influenza vaccination, we studied seniors at the Reisterstown Senior Center in Baltimore County, Maryland. We had two goals: to explore differences between vaccinated and nonvaccinated groups at the senior center, and to discover which factors were important in immunization in the elderly, as explained through models of health behavior.

Methods

The Reisterstown Senior Center, a community center supported by the Baltimore County Department of Aging, has 500 registered members and 375 active members. Membership is extended to all Baltimore County residents aged 60 and older. During the 1994 influenza season, influenza vaccinations were available for approximately three hours one day at a cost of six dollars. Despite the accessibility of vaccinations, increased mortality rates due to influenza complications appear to affect the Reisterstown community area of Baltimore County. The director of the Reisterstown Senior Center estimates that 10 active senior center members (2.7%) die yearly due to complications (Karen Bowling, personal communication).

We developed a survey using the PRECEDE model of needs assessment,[26] the health belief model,[27] and the Ajzen-Fishbein Model of Planned Behavior[28] of health behavior (**Table 1**). We took variables from each model because no

unifying theory of human behavior is universally accepted. In addition, our survey helped determine immunization rates at the senior center and factors associated with seniors not receiving the immunization. The questionnaire also asked respondents for basic demographic information, including living arrangements, age, sex, race, marital status, and education (a copy of the questionnaire is available from the authors).

We obtained a convenience sample of individuals actively participating at the center to fill out the survey. Samples were gathered at four site visits during the month of November 1994; the participation rate was approximately 80%. Surveys were completed by self-administration unless the individual needed assistance due to motor or visual impairments. In such cases, questionnaires were administered orally by one of the investigators.

Maryland 1990 census data were used to compare our sample with the total elderly population of the state. To determine factors that differentiate vaccinated from nonvaccinated groups, we compared categorical variables using chi-square tests and continuous variables using *t* tests. A *P* value of ≤ 0.05 was considered significant (two tailed). All statistical analyses were performed using the SPSS/PC statistical package. The study was approved by the Institutional Review Board of The Johns Hopkins School of Hygiene and Public Health.

Results

Of the center's 375 active members, 43 participated in the study. On average, the Senior Center attenders were better educated, more likely to be women, less likely to be married, and more likely to be white than the overall elderly population in Maryland (**Table 2**). Because we used a convenience sample, no statistical tests were performed on these data.

Of the 43 seniors who completed questionnaires, six (13.9%) stated their intention not to be vaccinated (the no-vaccination group); the remainder stated they had already been, were going to be, or intended to be vaccinated this year (the vaccination group).

Age and years of education were similar in both groups. There also were no significant differences in gender, living arrangements, marital status, race, and availability of transportation (**Table 3**). The two groups differed significantly, however, on measures of perceived susceptibility. The no-vaccina-

Table 2. Demographic variables of Reisterstown Senior Center attendees compared with Maryland elderly population

	Reisterstown Number (%)	Maryland Number (%)
Education		
• grade school	3 (8.6)	42031 (26.6)
• some high school	4 (11.4)	36005 (22.8)
• high school graduate	11 (31.4)	42895 (27.2)
• some college	7 (20)	23645 (15)
• college degree	8 (22.9)	3444 (2.2)
• advanced degree	2 (5.7)	9711 (6.2)
Gender		
• female	29 (72.5)	1410 (60.5)
• male	11 (27.5)	919 (39.5)
Housing		
• live alone	14 (33.3)	164375 (30.8)
• not alone	28 (66.7)	533920 (69.2)
Marital status		
• married	19 (51.4)	415459 (61.4)
• widowed	14 (37.8)	214083 (31.6)
• divorced	1 (2.7)	43386 (6.4)
• never married	3 (8.1)	37589 (5.6)
Race		
• white	42 (97.7)	583796 (83.6)
• black	1 (2.3)	114499 (16.4)

Note: Not all respondents answered all questions.

Table 3. Characteristics of vaccinated and nonvaccinated groups

Characteristics	Nonvaccinated (%)	Vaccinated (%)
• women	4 (66.7)	25 (67.6)
• men	1 (16.7)	10 (27)
• lives alone	2 (33.3)	12 (32.4)
• lives with family	3 (50)	23 (62.2)
• lives with friends	1 (16.7)	1 (2.7)
• married	3 (50)	16 (43.2)
• widowed	2 (33.3)	12 (32.4)
• divorced	0 (0)	1 (2.7)
• never married	1 (16.7)	2 (5.4)
• white	6 (100)	36 (97.2)
• black	0 (0)	1 (2.8)
• takes bus	0 (0)	2 (5.4)
• has own car	6 (100)	26 (70.3)
• relies on friends/family	0 (0)	6 (16.2)

Table 4. Knowledge and attitudes

	Nonvaccinated Mean (SD)	Vaccinated Mean (SD)
• Believe susceptible to flu without shot[1]	-1.2 (0.45)	0.77 (1.0)
• Flu shot affects health (-2.0<x<2.0)	0 (0.0)	0.71 (0.91)
• Know people who get flu shot (2>x>0)	1.6 (0.548)	1.6 (0.55)
• Satisfied with life(2>x>-1) (fair=0)	2 (0.0)	1.6 (0.56)
	Number (%)	**Number (%)**
• Know flu shot is available	5 (83.3)	36 (97.3)
• Know best time to receive flu shot	3 (50)	33 (89.2)
• Flu shot needed annually[2]	3 (50)	35 (94.6)
• Flu shot can cause flu	1 (16.7)	8 (21.6)
• Flu shot prevents a cold	0 (0)	4 (10.8)
• Flu shot prevents severe illness/cold symptoms[3]	4 (66.7)	34 (91.9)
• Flu shot was recommended[4]	2 (33.3)	31 (81.8)
• Family recommended flu shot	0 (0)	24 (64.9)
• Friends recommended flu shot	2 (33.3)	23 (62.2)
• Doctors recommended flu shot	3 (50)	26 (70.3)
• Know people who got sick from flu shot	4 (66.7)	4 (10.8)
• Have gotten sick from flu shot	1 (16.7)	0 (0)
• Likely to get flu shot if family recommends[5]	0 (0)	25 (67.6)
• Likely to get flu shot if friends recommend[6]	0 (0)	23 (62.2)
• Likely to get flu shot if doctor recommends[7]	0 (0)	32 (86.5)
• Money is an important consideration	0 (0)	7 (18.9)
• Receive annual physical exams[8]	4 (66.7)	28 (75.7)

[1] $t = 4.0(37), P < 0.001$
[2] $\chi^2 = 9.0(1), P < 0.01$
[3] $\chi^2 = 4.6(1), P = 0.03$
[4] $\chi^2 = 8.5(1), P < 0.01$
[5] $\chi^2 = 15.7(1), P < 0.01$
[6] $\chi^2 = 13.9(1), P < 0.01$
[7] $\chi^2 = 38.0(1), P < 0.01$
[8] $t = -2.08(40), P = 0.04$

tion group perceived themselves as less likely to get influenza without vaccination. Members of this group described themselves as healthier overall than those who intended to receive the vaccine.

The two groups also differed significantly on two predisposing factors of the PRECEDE model. The vaccination group was more likely to know that vaccination can prevent more severe illness and should be administered once a year. There were no other significant differences between the groups regarding knowledge or attitudes about influenza vaccination (**Table 4**). They also did not differ on preventive measures of a yearly physical examination and nonsmoking behavior.

None of the enabling factors on the questionnaire (transportation, cost of vaccination, knowledge that vaccination was available at the senior center) was significantly different between the two groups.

Influenza vaccination had been recommended to most members of the vaccination group (84%), whereas it had been recommended to only 33% of the no-vaccination group. For all but three seniors (two in the vaccination group and one in the no-vaccination group), the person recommending vaccination was a physician. In addition, members of the no-vaccination group were significantly less likely to state that they would follow recommendations of family members, friends, and physicians.

Discussion

Our data showed significant differences in attitudes, knowledge, and values between those receiving and those not receiving influenza vaccination. According to the health belief model, cues to action are an important predictor of health behavior. The nonvaccinated seniors were less likely to be cued to action as evidenced by a significantly lower frequency of immunization recommendations from their physicians. This finding is in concordance with those of previous studies and emphasizes the importance of physician recommendation in health promotion. Also as predicted by the health belief model, we found that the vaccinated and nonvaccinated groups differed in perceived susceptibility to influenza. Possible reasons for decreased perceived susceptibility are that nonvaccinated individuals felt that they were healthier overall than those who planned to be vaccinated, and members of the nonvaccinated group were less likely to know about the complications of influenza that lead to increased mortality and morbidity rates.

According to the Ajzen-Fishbein Model of Planned Behavior, recommendations of significant others and motivation to comply with those others are significant in determining health behavior. Nonvaccinated seniors were very resistant to social influence or pressure. They reported that

even if family, friends, or physicians were to recommend immunizations, they would not change their behavior. All of the behavioral models support the results that those who were not vaccinated have different health beliefs than the vaccinated group. Thus it appears that although physician recommendation is recalled as an important influence by vaccinated seniors, a smaller proportion of seniors are resistant to the recommendations of physicians, family, or friends.

Our data indicate that to increase the proportion of elderly who receive influenza vaccination, physicians should recommend influenza vaccination to their elderly and chronically ill patients. The importance of physician recommendation cannot be overestimated. It is not necessary, however, for physicians to handle all patient reminders. Office staff members (e.g., nurses, medical assistants) can ask patients about health promotion activities, and front office staff can hand out reminders to patients when they first arrive or attach physician reminders to the patients' charts. Recommendations to elderly patients should emphasize their susceptibility to influenza and its complications; that Medicare now pays for influenza immunization; and that influenza immunizations do not "give you the flu." Professionally presented information about the mechanisms and medical benefits of influenza immunizations may be the most beneficial. Education may change an individual's perceived susceptibility and misinformation and increase the likelihood of a decision to receive the immunization. As our results indicate, however, physician recommendation and education may not be enough to motivate some patients to receive vaccination. Social influences also are important.

Although our needs assessment questionnaire identified factors that may discriminate between those being immunized and those not being immunized, our findings should be interpreted cautiously. Because our sample may represent only active attendees of senior centers, our data may not be generalizable to nonactive members or to other community-dwelling elderly. The high immunization rate in our sample also suggests that active attendees at a senior center may not be a subgroup with the most barriers to obtaining influenza vaccines. In our study, significant barriers were values and attitudes, whereas previous studies have identified limited funds or isolation as common barriers among the elderly. The high vaccination rate also suggests that the senior center's programs which promote the importance of influenza vaccination, Medicare coverage of the vaccine, and the annual delivery of influenza vaccines at the senior center are successful in influencing most of the group to receive vaccination. The focus should therefore be on reducing barriers to active participation in the center.

Future studies of barriers to influenza vaccination could be improved by conducting a longer study to increase the sample size, recruiting a systematic sample to reduce possible bias, and pilot testing the questionnaire to identify items that are poorly worded or have low internal validity or reliability.

In summary, elderly attending senior centers are likely to avail themselves of influenza vaccination, but some barriers remain. Physicians can improve influenza vaccination rates by recommending vaccination to their elderly and chronically ill patients.

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BUILDING A NEW MUSEUM OF CIVIL WAR MEDICINE

In late spring 1994, we walked into an almost empty building about a block from the main intersection in downtown Frederick, Maryland. The task facing us was both exhilarating and enormous. After years of dreams and discussions, it was time to create a museum of national stature, dedicated to the story of Civil War medicine.

The response to our endeavor has been overwhelmingly positive. The commitment from our local governments has been outstanding. Physicians, nurses, schoolchildren, genealogists, and Civil War buffs have joined our cause.

Our long-term plans are in two phases. The first involves the museum building itself. It is old (dating from 1832), large (21,000 square feet on three floors), and in need of total renovation. Our architects recommend gutting the building's interior because a public museum building must accommodate visitors with disabilities, assure security, and provide the best environment for artifacts. Although expensive, it is only sensible that we follow their suggestion.

The second phase of our long-term planning involves using objects to tell this moving and dramatic story. Wonderful artifacts are already available to us, and we must give them the very best home. Preliminary ideas from our architects include a research facility and two life-size exhibits of field and fixed bed hospitals. Recent improvements in exhibit design make total immersion--with lifelike figures, foliage, lighting, and sounds--expensive, but necessary to attract a wide audience.

If you own an object, have an idea for an exhibit, know an individual or an organization that may be interested, or want to discuss your own potential involvement, please call us at 301-695-1864 or write to us at P.O. Box 470, Frederick, Maryland 21705. We owe the museum to the surgeons and stewards who saw so much suffering in those four years and to the thousands of nurses and volunteers who gave so much in caring for the sick and wounded. We must tell the world their story.

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Oral morphine protocol for sickle cell crisis pain

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From the University of Maryland Medical Center, where Mr. Conti is a medical student; Dr. Tso is an associate professor of surgery and medicine and an attending physician in emergency medicine; and Dr. Browne is an associate professor of surgery and medicine and clinical director of the emergency department.

ABSTRACT: *The painful vaso-occlusive crises that complicate sickle cell anemia can be difficult and frustrating for both patient and physician. We describe our experience using an oral morphine protocol for the treatment of sickle cell crisis pain. The emergency department (ED) visits of nine patients with sickle pain were reviewed for the 12 months before and after implementation of the protocol. The oral morphine regimen was associated with a significant reduction in the number of ED visits, total number of hours spent in the ED, and the proportion of visits that ended in admission to hospital ($P < 0.01$). The protocol is a useful tool for providing consistent oral analgesia to patients with sickle crisis pain.*

Sickle cell anemia is an inherited hemoglobinopathy that affects approximately 50 000 African Americans.[1] The most common complication is vaso-occlusive crisis.[2,3] Among patients with sickle cell anemia, the pain of these crises is the most common reason for emergency department (ED) visits.[3-5] About 20% of sickle cell patients have frequent and severe crises necessitating repeated and prolonged emergency care.[3,6]

The basic treatment of sickle crisis is appropriate hydration and pain management. The physician can choose from many analgesic agents: oral acetaminophen,[3] oral or parenteral nonsteroidal antiinflammatory agents,[3] and oral or parenteral narcotics including meperidine,[3,8,9] codeine,[3] morphine sulfate,[3,4] oxycodone,[4] hydromorphine,[3] and methadone.[9] Success also has been reported with patient-controlled, continuous infusions of opioids.[8] Each option has advantages and disadvantages. With narcotics there is concern about excessive sedation and addiction.[4] Problems with intramuscular injections include muscle fibrosis, abscess formation, nerve injury, and erratic drug absorption.[4,8] Intravenous access

Table 1. Sickle crisis analgesia protocol

First choice

- **Ibuprofen** 800 mg p.o. and **morphine sulfate elixir** 60 mg p.o. followed by **morphine sulfate elixir** 20 mg p.o. every 30 minutes until pain relief or sedation occurs or a total of 300 mg over 6 to 8 hours in the ED, at which point decision is made to admit or discharge the patient.

Alternate choices

- **Oxycodone** 5 to 10 mg with acetaminophen 325 to 650 mg p.o. every 3 hours or
- **Oxycodone** 5 to 10 mg with aspirin 325 to 650 mg p.o. every 3 hours or
- **Codeine** 30 to 60 mg with acetaminophen 325 to 650 mg p.o. every 3 hours.

often becomes difficult after repeated use and the resulting sclerosis of veins.[4,8]

Several considerations complicate the ED care of patients with sickle cell pain. Patient evaluation can be difficult because there is often a paucity of objective findings on physical, laboratory, and radiographic examinations.[3,4] Therapy is frequently directed by patients' own verbal assessments of pain.[3] Care is also influenced by medical staff attitudes. Frequent ED visits for pain relief may be perceived as drug-seeking behavior.[4,9] There also may be a tendency for staff to underestimate and undertreat pain.[7] In emergency departments without protocols for the management of crisis pain, delivery of analgesia can be inconsistent because patients are seen by different staff members at each visit. The specific drugs used and the methods of administration may vary among physicians.

To eliminate inconsistencies and improve patient care, we instituted an oral treatment protocol for sickle cell crisis pain. We describe our experience with this protocol and compare, retrospectively, the characteristics of ED visits before the protocol with those of visits occurring after implementation.

Materials and methods

The University of Maryland Medical Center is an inner-city teaching hospital with approximately 40,000 ED visits annually. Prior to institution of the oral morphine protocol (OMP), ED patients with sickle crisis pain received parenteral meperidine, usually delivered intravenously. Dosages (range, 50 to 125 mg) and dosing intervals (range, 2 to 4 hours) varied depending on physician discretion and patient demand. In December 1990, we began oral therapy for sickle crisis. Because of previously reported success using morphine sulfate for sickle pain[4] and ease of oral administration, our primary regimen was morphine sulfate elixir 60 mg with oral ibuprofen 800 mg followed by morphine 20 mg by mouth every 30 minutes. For patients with histories of adverse reactions to morphine, alternative narcotic agents were oxycodone and codeine (**Table 1**). Reasons for discontinuing the protocol and switching to parenteral meperidine included failure to improve, nausea or vomiting unrelieved by perchlorperazine, and the appearance of anaphylactic symptoms. The protocol was not initiated in patients with documented allergies to all the oral agents or inability to take medications orally.

We reviewed ED registration logs and identified all patients who were treated for sickle cell crisis pain between January 1, 1990, and December 31, 1991, the 12 months preceding and following institution of the OMP. A subset of nine patients formed our study population. These were six men and three women with an average age of 29.8 years (range, 18 to 40), who had visited the ED during both pre-OMP and post-OMP periods. We obtained the medical records of their ED visits and retrieved the following information: date and time of visit, medications, allergies, ED treatment, final disposition, and length of ED stay. For post-protocol visits, we also noted any deviations from the OMP. Paired data were analyzed with Student's *t* test.

Results

The OMP was attempted in 102 (88%) of 116 ED visits. In the 102 instances in which the protocol was started, it was completed 84 times (82%). Characteristics of the patients' ED visits pre- and post-OMP are presented in **Table 2**. The number of ED visits decreased significantly following imple-

Table 2. Emergency department visits for sickle crisis in 9 patients

	Before Protocol	After Protocol	(*P*)
Total visits	150	116	(< 0.01)
Total hours in ED	1459.7	936.7	(< 0.01)
Mean length of ED stay	9.73 h	8.07 hr	
Number visits patient left AMA	5	6	
Number admissions	19 (12.6%)	5 (4.3%)	(< 0.01)

AMA = against medical advice

mentation of the OMP. The study patients averaged 16.7 ED visits (range, 7 to 27) for the 12 months preceding OMP, compared with an average of 12.9 visits (range, 6 to 19) for the post-OMP period ($P < 0.01$). The total number of hours spent in the ED decreased in all nine patients after OMP. Admission rates also decreased significantly.

Six patients followed OMP without deviation at every ED visit. In this group there were 116 visits during the year before the protocol and 87 visits for the year after the protocol ($P < 0.01$). The admission rate for this subset of patients dropped from 6.9% to 3.4% after OMP ($P < 0.01$).

Discussion

For many of our sickle patients, the change in treatment was associated with fewer ED visits and fewer hospital admissions. As a result, OMP is now used routinely in our ED. We assume that the difference in the number of ED visits pre- and post-OMP was due to the change to oral therapy, although the decrease in visits to our ED simply could mean that patients dissatisfied with the new oral protocol were going to other EDs where parenteral therapy was still provided. We were unable to determine if our patients increased their utilization of other EDs during the study period. Powers[9] found that implementation of an oral meperidine or methadone protocol did not result in increased visits to other facilities, and he concluded that the reduction in ED use was absolute.

Our patients divided themselves into two groups: six patients who were able to follow the protocol and appeared to do well with it; and three patients who had difficulties with OMP. The latter appeared to obtain satisfactory analgesia only with parenteral meperidine. Two of the three had not previously reported any drug allergies, but stated they were allergic to morphine after the protocol was initiated. Nausea, vomiting, itching, or hives were reported during some of their ED visits. Although many of these symptoms resolved with perchlorperazine or diphenhydramine, neither patient was ever able to complete the oral protocol. No attempt to start OMP was made in 14 of their 22 subsequent visits.

Patients discharged themselves against medical advice (AMA) five times before OMP and six times with OMP. Three patients accounted for all six premature discharges that occurred with OMP. Prior to OMP, i.e., with parenteral therapy, none of these three had left AMA. These patients visited the ED 34 times before OMP and 29 times after OMP. The protocol was attempted in 11 of their 29 visits and was completed only once. Their charts noted complaints of inadequate pain relief or intolerable side effects with morphine. The protocol was completed successfully only once out of their combined 13 visits. The patients who did well and completed OMP each time were those who had left AMA with parenteral therapy, before OMP. With oral therapy, their AMA rate was zero.

Because of the retrospective design of our study we were unable to measure patients' assessments of pain relief or their satisfaction with OMP at the time of their ED visits. Therefore, we cannot conclude that the oral protocol is a better or improved way of treating sickle crisis pain. Other clinicians, however, have reported a high degree of patient and staff satisfaction with a standardized care plan.[4,9] Although our sample size is small and our data gathering limited by our retrospective study method, we present OMP as a useful and consistent tool for treating sickle crisis pain. Particularly in settings such as teaching hospitals where physician staffing is constantly changing, the regular doses and administration schedule eliminate the delays between patient demand and delivery of medication. The protocol is not meant to restrict physicians' options, but to provide a common, reliable starting point for analgesia that will be unaffected by perceptions of patient discomfort and staff idiosyncrasies in the busy ED.

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CASE RECORDS

of the University of Maryland Medical Center

A 36-year-old woman with altered sensorium

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Presentation of case

A 36-year-old woman was admitted for evaluation of altered sensorium. For five days before admission, she had noted increasing lethargy, malaise, and dizziness upon rising. For two days, she had been too weak to eat. While in the hospital waiting room, the patient became stuporous with spontaneous movements of her upper extremities that were non-tonic clonic in nature. There was no loss of bowel or bladder control or postictal period. The patient responded purposefully to pain and ammonia inhalant and symptoms resolved completely after the administration of glucose and naloxone (Narcan). A fingerstick blood glucose level was 100 mg/dl after glucose administration.

Table 1. Laboratory values

Hematologic	
• Hematocrit	27.2%
• Hemoglobin	9.4 g/dl
• Mean corpuscular volume	84 um^3
• White blood cell count	6400/mm^3
• Platelet count	280 000/mm^3
Chemical	
• Urea nitrogen	17 mg/dl
• Creatinine	0.8 mg/dl
• Glucose	287 mg/dl
• Sodium	133 mmol/L
• Potassium	4.3 mmol/L
• Chloride	104 mmol/L
• Carbon dioxide	17 mmol/L
• Total protein	6.6 g/dl
• Albumin	3.2 g/dl
• Calcium	8.0 mg/dl
• Phosphorus	4.4 mg/dl
• Magnesium	2.3 mg/dl
• Bilirubin	0.8 mg/dl
• SGOT	143 U/L
• SGPT	64 U/L
• Alkaline phosphatase	86 U/L

Patient history. The patient gave a history of noninsulin-dependent diabetes mellitus (NIDDM), but said glyburide had been discontinued three months previously because of hypoglycemic seizures. She smoked a pack of cigarettes daily and was an active heroin abuser; she had last used heroin two hours prior to evaluation. She denied alcohol abuse. She said she was seropositive for hepatitis B and C, but negative for human immunodeficiency virus. She had lost 40 pounds during the past six months. She said that her last menstrual period was normal ten days previously.

Physical examination. Although the physical examination showed wasting, the patient was alert and oriented without distress. Supine blood pressure was 98/60 mm/Hg, pulse rate was 86, respiratory rate was 18, and temperature was 97.2° F. The patient was anicteric and had no areas of hyperpigmentation or vitiligo. There was no thyromegaly or adenopathy. Her lungs were clear. Cardiac examination showed no arrhythmia, gallops, or murmurs. There was no organomegaly and the extremities were without cyanosis or edema. Cranial nerves II-XII were intact. There were no focal neurologic abnormalities and reflexes were normal. Rectal examination was unremarkable and stool showed no blood.

Laboratory values. Admission hematologic and chemical laboratory results are shown in **Table 1**. An electrocardiogram showed no abnormalities and a chest radio-

graph showed no infiltrates, masses, or effusions. Oxygen saturation by pulse oximetry was 97%. Urinalysis was positive for trace acetone, protein, and small bacteria with 3^+ leukocyte esterase. Urine specific gravity was 1.021; pH was 5.0. Beta human chorionic gonadotropin (HCG) was negative. A toxicology screen was positive for opiates.

Following admission, the patient was maintained on intravenous glucose and a normal diet. Fingerstick blood glucose levels were consistently within normal limits and blood cultures were negative. A diagnostic test was performed.

Differential diagnosis

A young woman who abuses drugs presents with transiently altered mentation, preceded by several days of lethargy, malaise, orthostasis, and inanition. She has lost 40 pounds during the past six months and has profound anemia, ketonemia, a history of glyburide-induced hypoglycemia, and antibodies against hepatitis B and C. General categories for consideration in the differential diagnosis of altered sensorium are cerebral hypoperfusion, seizure disorders, metabolic disorders, drugs, and infection.

Cerebral hypoperfusion is an unlikely cause for the patient's altered mental status because of the transient nature of her neurologic symptoms and her prompt response to glucose and naloxone. Although she has a history of a seizure disorder, seizures alone cannot account for the lethargy, weight loss, and anemia. Sepsis is unlikely because the patient remained asymptomatic after admission to the hospital and cultures were negative. Narcotics could account for the alteration in mental status that responded to naloxone, but not for the concomitant anemia and weight loss.

Metabolic causes of altered mental status and seizures include hypoglycemia, hyper- and hypocalcemia, hypomagnesemia, and hypothyroidism. Of these, only hypoglycemia would show such a dramatic response to glucose. The movements observed while the patient was stuporous could have been part of a partial complex motor seizure provoked by neuroglycopenia. Are this patient's signs and symptoms due to a hypoglycemic disorder? Although they do not fulfill Whipple's triad—documented hypoglycemia (blood glucose < 40 mg/dl) accompanied by symptoms that are relieved by glucose—the patient's history is suggestive. Hypoglycemia could not be confirmed because dextrose was administered before blood glucose levels were measured.

When blood glucose levels fall, metabolic adjustments occur to meet intracerebral glucose requirements and prevent neuroglycopenia, often at the expense of other organs. The heart, kidneys, and muscle can use ketones as a fuel source, but the brain cannot. Five hormones are involved in the body's defenses against neuroglycopenia: insulin, glucagon, catecholamines, cortisol, and growth hormone. The initial response to hypoglycemia is suppression of insulin secretion, which increases hepatic glycogenolysis and gluconeogenesis and decreases glucose utilization by muscle. Since insulin inhibits lipolysis and ketogenesis, insulin suppression increases ketogenesis. Hypoglycemia stimulates glucagon secretion and glucagon-induced hepatic glycogenolysis and gluconeogenesis are major defenses against neuroglycopenia. Hypoglycemia also increases serum catecholamines, which mobilize muscle glycogen and potentiate lipolysis. The sustained effects of cortisol and growth hormone on gluconeogenesis become significant after a prolonged fast, like the one seen in this patient, because hepatic glycogen stores are depleted within 12 to 18 hours. Cortisol facilitates lipolysis, increases protein catabolism (which results in muscle wasting), and potentiates hepatic gluconeogenesis from mobilized amino acids and lipids. Although the significance of growth hormone's role in the defense against neuroglycopenia is less profound, it has been shown to activate lipolysis and antagonize the effect of insulin on glucose utilization.

The differential diagnosis of the fasting hypoglycemia described in this patient's history can be divided according to the presence or absence of hyperinsulinemia (**Table 2**).[1] To

Table 2. Differential diagnosis of fasting hypoglycemia

Hyperinsulinemia present
- insulin reaction
- sulfonylurea overdose
- autoimmune hyperglycemia
- pentamidine-induced
- pancreatic beta cell tumors

Hyperinsulinemia absent
- hepatic dysfunction
- alcohol abuse
- hypocortisolism
- hypothyroidism
- nonpancreatic tumors

distinguish between the causes of hyperinsulinemic hypoglycemia, serum samples must be obtained while the patient is symptomatic and serum glucose levels are low. The most efficient way is to have the patient begin a 72-hour fast. If symptoms of hypoglycemia emerge, serum samples should be obtained for glucose; biologically active immunoreactive insulin (IRI); C-peptide, which is secreted in equilibrium with IRI under physiologic circumstances; and proinsulin (intact insulin), which contains both the biologically active IRI and inactive connecting-peptide components. Biochemical hypoglycemia should be confirmed first, because in the absence of documented hypoglycemia, the remaining studies are unreliable.

The most common cause of hyperinsulinemic hypoglycemia is inappropriate insulin administration and inadequate nutrition in diabetic patients, or deliberate surreptitious use by nondiabetics. The diagnosis is confirmed if IRI levels are elevated and C peptide secretion is suppressed because C peptide is not present in commercial insulin preparations. This patient's history does not suggest that she had access to insulin. She does, however, give a history of NIDDM requiring glyburide and glyburide-induced hypoglycemia. Sulfonylureas such as glyburide provoke hypoglycemia by increasing both insulin secretion and sensitivity. Both C peptide and IRI are elevated and the diagnosis is confirmed by testing the urine or serum for the specific sulfonylureas in question. Pentamidine causes pancreatic beta cell destruction accompanied by the release of excess IRI, C peptide, and proinsulin,[2] but there is no indication that this patient was taking or had access to pentamidine.

Autoimmune dysfunction has been associated with two forms of hypoglycemia. In one, hypoglycemia is the result of anti-insulin receptor antibodies with insulin-like activity. This syndrome, first described in patients with type B insulin-resistance and acanthosis nigricans, is usually seen in insulin-requiring female diabetics.[3] In the second form of autoimmune hypoglycemia, symptoms occur three to four hours after a meal because of the spontaneous release of endogenous insulin from circulating anti-insulin antibodies. This disorder has been associated with Grave disease, systemic lupus erythematosus, rheumatoid arthritis, and multiple myeloma.[4,5] The diagnosis of autoimmune hypoglycemia is determined by detecting the appropriate antibodies in the serum.

Pancreatic beta cell tumors (insulinomas) cause fasting hyperglycemia because of nonsuppressible insulin secretion. Elevated serum proinsulin levels that are out of proportion to IRI may distinguish these tumors from other causes of hyperinsulinemia because tumoral hormonogenesis is often inefficient. Insulinomas are usually benign and unifocal. Although a metastatic insulinoma could result in weight loss, fatigue, and anemia, the presence of urine and serum ketones makes any of the previously described hyperinsulinemic conditions unlikely.

Nonhyperinsulinemic hypoglycemia occurs in fasting patients with impaired glycogenolysis and/or gluconeogenesis and is usually due to drugs or liver disease. Alcohol precipitates hypoglycemia in malnourished patients with depleted glycogen stores by impairing gluconeogenesis.[6] Although this patient has hepatitis B and C antibodies, her clinical presentation and liver function tests do not indicate the presence of end-stage liver disease, and there is no evidence of alcohol abuse. Nonpancreatic cell tumors provoke hypoglycemia by either consuming excess serum glucose or secreting peptides with insulin-like activity.[7] They are usually large, easily palpable intrathoracic or intrabdominal mesenchymal tumors. In this patient, the chest radiograph and physical examination were not consistent with this diagnosis.

Although hypothyroidism could account for this patient's lethargy, malaise, and anemia, it does not account for her weight loss. The slowed reflexes of hypothyroidism are frequently overlooked during the routine physical examination. Most hypothyroid patients have normochromic normocytic anemia, but iron deficiency anemia from menorrhagia can occur.[8] The combination of severe microcytic anemia with orthostasis in this patient is consistent with this possibility. Although the patient stated that her last menstrual period was normal, she may have failed to note that her menses were occurring more

frequently. The hypoglycemia associated with hypothyroidism is usually modest and asymptomatic. As a result, when a hypothyroid patient develops neuroglycopenic symptoms and hypoglycemia, additional hormonal deficiencies should be sought. Therefore, although hypothyroidism may be a contributing factor, it does not appear to account fully for all the signs and symptoms in the patient's presentation.

In addition to fasting hypoglycemia, signs and symptoms of adrenal insufficiency include weight loss, inanition, orthostasis, and amenorrhea (**Table 3**). Diabetic patients who develop concomitant adrenal insufficiency frequently present with decreasing insulin requirements and become exquisitely sensitive to sulfonylureas. The most common causes of primary adrenal insufficiency are autoimmune, infectious, hemorrhagic, and infiltrative diseases. More than 90% of patients with chronic primary adrenal insufficiency develop hyperpigmentation along the buccal mucosa or gingiva or around healed scars. Classic laboratory findings include anemia, eosinophilia, hyponatremia, and hyperkalemia due to zona glomerulosa involvement. As a result, there is both cortisol and aldosterone deficiency.

Unlike patients with primary adrenal insufficiency, patients with secondary (adrenocorticotrophin [ACTH] deficiency) or tertiary (corticotrophin-releasing factor [CRF] deficiency) adrenal insufficiency have no hyperpigmentation. They are normokalemic because aldosterone production is not ACTH-dependent. Isolated ACTH deficiency is rare, but has been reported. ACTH deficiency usually occurs with global pituitary dysfunction, which affects multiple adenohypophyseal hormones. Common causes of pituitary insufficiency include suppression of the pituitary-adrenal axis by long-term steroid administration, invasive lesions (i.e., prolactinomas), infarction (i.e., Sheehan's syndrome), infiltrative and granulomatous disorders, infection, empty sella, and trauma. There is a characteristic sequence of anterior pituitary hormone depletion. Although growth hormone is usually affected first, growth hormone deficiency may be clinically silent in adults. It is followed by depletion of luteinizing hormone (LH), follicle stimulating hormone (FSH), thyrotropin (TSH), and ACTH. Consequently, women with secondary adrenal insufficiency are usually amenorrheic because gonadotrophin involvement usually precedes ACTH depletion. Prolactin deficiency only occurs when there has been extensive pituitary damage. In fact, since prolactin is under negative inhibition via the hypothalamus, levels may become frankly elevated if the infundibulum has been damaged by trauma or mass effects.

A combination of thyroid and adrenal insufficiency may account for this patient's history of "normal" menstrual periods. She may have had a constellation of autoimmune phenomena, such as Schmidt's syndrome, which includes pernicious anemia with adrenal and thyroid insufficiency. However, her microcytic anemia is not consistent with this diagnosis because the vitamin B_{12} deficiency of pernicious anemia is associated with macrocytosis.

Empty sella is an anatomic anomaly caused by incompetence of the diaphragm sella resulting in extension of the subarachnoid space into the sella turcica and impingement on the pituitary mass. It is a radiographic diagnosis. Although empty sella has also been associated with isolated hormone deficiencies, including ACTH and TSH, most patients with empty sella have normal pituitary function.[9-10] As a result, the causal relationship between empty sella and adenohypophyseal hormone deficiencies is inconclusive.

Autoimmune lymphocytic hypophysitis is another entity that has been associated with isolated pituitary hormone deficiencies. Although symptoms usually include panhypopituitarism because the lymphocytic infiltration creates a mass effect, patients occasionally have isolated hormone involvement. Lymphocytic hypophysitis, which has been associated with ACTH deficiency and thyroid dysfunction,[11-12] was first described in 1962 at autopsy in a woman with

Table 3. Signs and symptoms of adrenal insufficiency

Generalized weakness	99%
Pigmentation*	98%
Weight loss	97%
Anorexia, nausea, vomiting	90%
Hypotension	80%
Abdominal pain	34%
Salt craving	22%
Diarrhea	20%
Syncope	16%
Vitiligo*	9%

**Associated with primary adrenal insufficiency*

CASE RECORDS

Hashimoto's thyroiditis.[11] Radiologic imaging often shows pituitary enlargement. The presence of antihypophyseal antibodies in the serum may suggest the diagnosis,[13-14] but a conclusive diagnosis can only be obtained histologically.

This patient appeared to be experiencing neuroglycopenic symptoms because of fasting hypoglycemia in the presence of adrenal insufficiency and anemia due to menorrhagia. Points leading to this conclusion are the presence of ketosis, orthostasis, weight loss, and sulfonylureas sensitivity, as well as the basal cortisol and ACTH levels and the results of the ACTH stimulation test. The combination of low serum cortisol levels, which respond poorly to exogenous ACTH, and a low serum ACTH level would be diagnostic of secondary adrenal insufficiency. Thyroid function tests including TSH also should have been performed.

Clinical diagnosis: Neuroglycopenia due to adrenal insufficiency; possible hypothyroidism.

The patient was admitted to the University of Maryland Hospital. Urine and serum were obtained for toxicologic screening. Both screenings, including screening for sulfonylureas, were negative. The patient also underwent a magnetic resonance imaging scan of the head, which was normal. A serum test for beta HCG was negative. TSH, FSH, LH, and prolactin levels in serum were within normal limits, but a random cortisol level was extremely low (< 0.6 mcg/dl; normal, 5 to 23 mcg/dl). A serum ACTH level was subsequently obtained, which also was low (< 10 pg/ml; normal, 80 to 130 pg/ml). A corticotropin releasing hormone (CRH) stimulation test was therefore performed. Cortisol levels remained at < 0.6 mcg/dl at 0, 30, and 60 minutes after CRH administration.

Final diagnosis: isolated ACTH deficiency.

The patient was treated with replacement hydrocortisone 20 mg each morning and 10 mg each evening. Her symptoms resolved fully and she experienced no further episodes of hypoglycemia.

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Case report: paclitaxel-induced myocardial ischemia

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Although paclitaxel (Taxol) appears to one of the most promising antineoplastic agents against ovarian, breast, lung, head, and neck cancers, many clinicians have had little experience with it. Since its early clinical trials in 1983, paclitaxel administration has been linked to a variety of cardiovascular problems, including arrhythmias, heart block, and myocardial ischemia/infarction.[1] Following is a case report of a patient with metastatic breast carcinoma who developed myocardial ischemia during Taxol infusion. We also review the literature for the frequency of this complication and the potential mechanisms involved.

Case report

A 39-year-old woman with metastatic breast cancer who had been treated with chemotherapy was readmitted with progressive shortness of breath. Her past medical history was otherwise unremarkable. She had no known coronary events or risk factors. The physical examination showed a frail woman in severe respiratory distress. Blood pressure was 90/40 mm/Hg, pulse rate was 132, respiratory rate was 40, and pulsus paradoxus was > 25 mm/Hg. The neck veins were distended and heart sounds were muffled; hepatomegaly and pitting edema were also present.

Echocardiography confirmed the clinical impression of large pericardial effusion with cardiac tamponade (**Figure 1**). Left ventricular (LV) systolic function appeared normal. An electrocardiogram (ECG) showed no abnormalities except for low QRS voltage (**Figure 2**). A pericardial tap yielded 600 cc of serosanguinous fluid with near complete resolution of the pericardial fluid as indicated by echocardiography.

A catheter was left in the pericardial sac and > 100 cc of fluid was drained daily for two days. On the third day, the patient received intravenous (IV) paclitaxel 135 mg/m^2 over 24 hours. She had been given IV dexamethasone 20 mg at 6 hours, IV diphenhydramine 50 mg at 30 minutes, and IV cimetidine 300 mg at 30 minutes prior to paclitaxel infusion. During the paclitaxel infusion she was monitored by cardiac

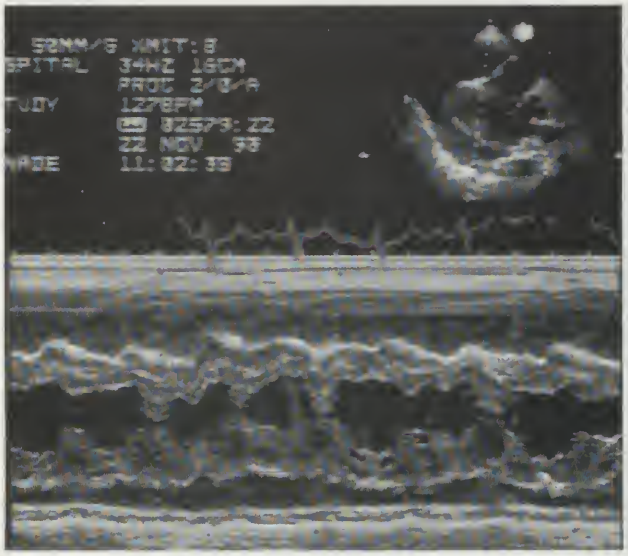


Figure 1. M mode and 2D echo before pericardial tap showing large pericardial effusion anteriorly and posteriorly with the RV diastolic collapse. LV systolic function is preserved.

* *IVS = interventricular septum*
PLVW = posterior left ventricle wall
PE = pericardial effusion

telemetry. Seven hours after the infusion was started, new ST segment depression was noted on the monitor. ECG confirmed the presence of new ischemic changes in the precordial leads (**Figure 3**). Heart sounds, which had become distinct after the tap, were again muffled. Repeat echocardiogram showed minimal pericardial effusion, but new large segmental wall motion abnormalities involving the septum, apex, anterior, posterior, and lateral walls were noted. LV systolic function became markedly reduced (**Figure 3**). Cardiac isoenzymes did not support an acute myocardial infarction. During the next 48 hours, the patient's condition continued to deteriorate; she developed low cardiac output syndrome with altered sensorium and her urine output dropped. She died three days after the paclitaxel infusion. Permission for a post-mortem examination was not granted.

Discussion

Paclitaxel, a diterpene extracted from the bark of the Western Pacific yew (*Taxus brevifolia*), is an antimicrotubule agent that promotes microtubule assembly. A variety of cardiac disturbances (e.g., ventricular arrhythmias, bradycardia, atrioventricular conduction block, bundle branch block, and myocardial ischemia/infarction) have been observed during paclitaxel infusion.[1] Although the mechanism of these disturbances has not been fully elucidated, they are believed to be related to either paclitaxel per se or its carrier, the Cremiphor EL. The latter is known to induce the release of histamine, which may stimulate H_1 and H_2 receptors in cardiac tissue. This stimulation can increase oxygen demand and produce coronary vasoconstriction via H_1 receptors and chronotropic effects via H_2 receptors. Hence, the activation of histamine receptors in cardiac tissue may explain the broad spectrum of cardiac disturbances that have been observed during paclitaxel administration.

The overall incidence of paclitaxel-induced myocardial ischemia is not known. Rowinsky and colleagues[1] described two patients with manifestations of myocardial ischemia among 140 cancer patients treated with paclitaxel. One developed chest discomfort during paclitaxel infusion. His ECG showed complete heart block and ST segment elevations in the inferior leads that were believed to indicate an ischemic cardiac injury. The other patient experienced chest pain associated with nausea, believed to be angina pectoris, that was relieved by nitroglycerin.

The adverse drug reaction database of the National Cancer Institute's Cancer Therapy Evaluation Program includes information on more than 3400 patients who received paclitaxel. Of these, 22 patients experienced cardiac toxicity and 8 died. In three patients with coronary artery disease, death was

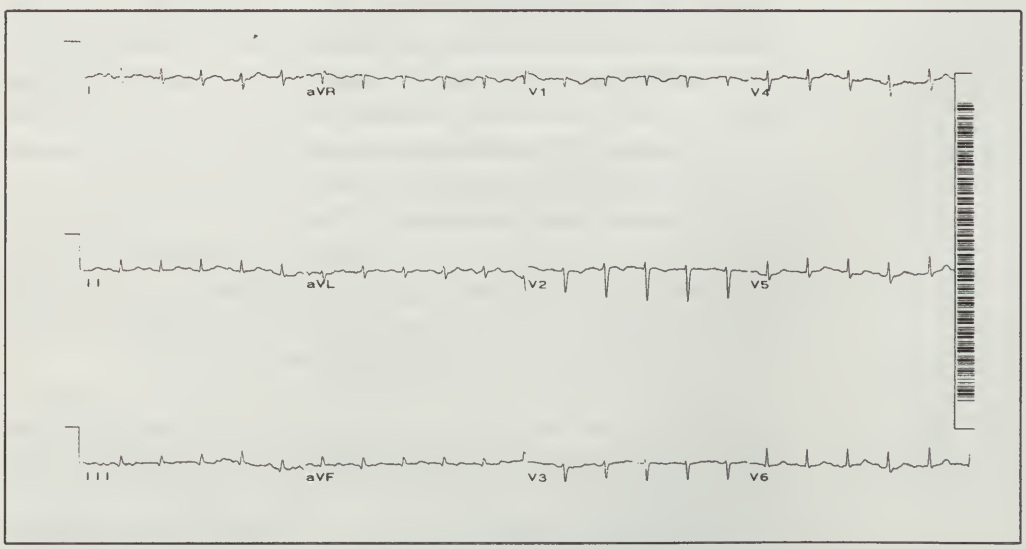


Figure 2. ECG before paclitaxel infusion shows low QRS voltage.

due to myocardial infarction (recorded at autopsy). Four patients died suddenly and one died of unknown cause.[3] In a phase II trial involving 23 patients with prostate cancer, Roth and colleagues[4] reported two sudden deaths from cardiovascular events and a third patient with non-Q wave myocardial infarction.

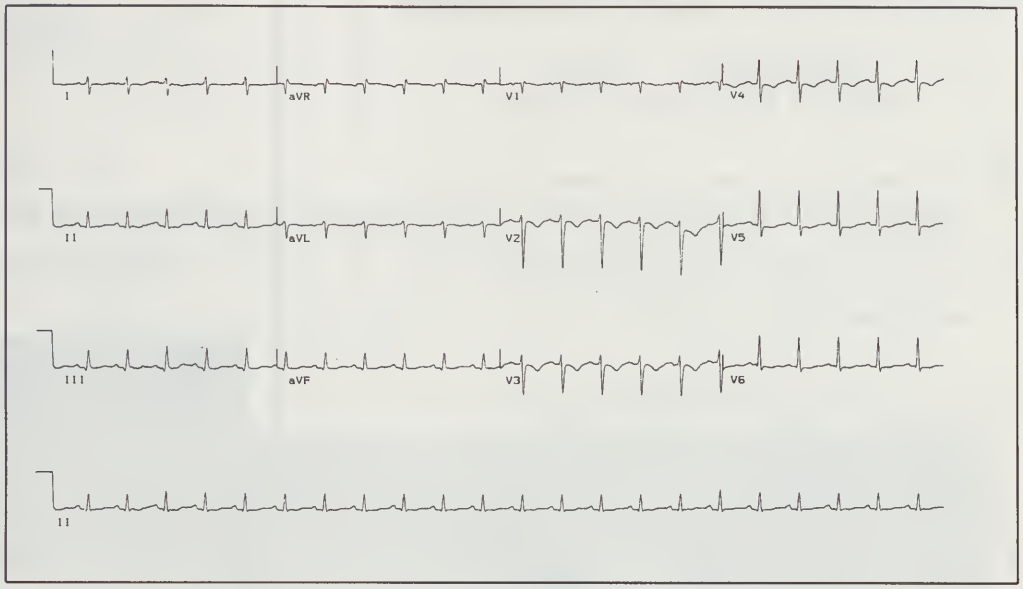


Figure 3. ECG after paclitaxel infusion shows anterolateral ST-T changes.

Although the incidence of myocardial ischemia is probably low, as the data above suggest, there is a high risk of paclitaxel-induced arrhythmias such as bradycardias. In one phase II trial, asymptomatic bradycardias were reported in 29% of 45 patients with ovarian cancer.[1]

Our patient had no known heart disease. Her coronary risk profile was low and her LV systolic function was normal before paclitaxel infusion. It seems likely that her wall motion abnormalities which occurred during the paclitaxel infusion were directly related to the drug. Although sepsis syndrome could account for reduced LV systolic function, the temporal relationship between the wall motion abnormality and the infusion, as well as the definite LV segmental involvement, do not support sepsis as the cause of the LV systolic dysfunction.

Paclitaxel-induced cardiac disturbances may become more commonly recognized with the increasing use of this agent. The optimal paclitaxel dose and schedule, as well as the clinical profile of patients at highest risk for cardiac toxicity remain subjects for investigation. Identification of risk factors may lead to selection of patients who may require more intensive supportive measures to reduce the risk of potentially fatal complications.

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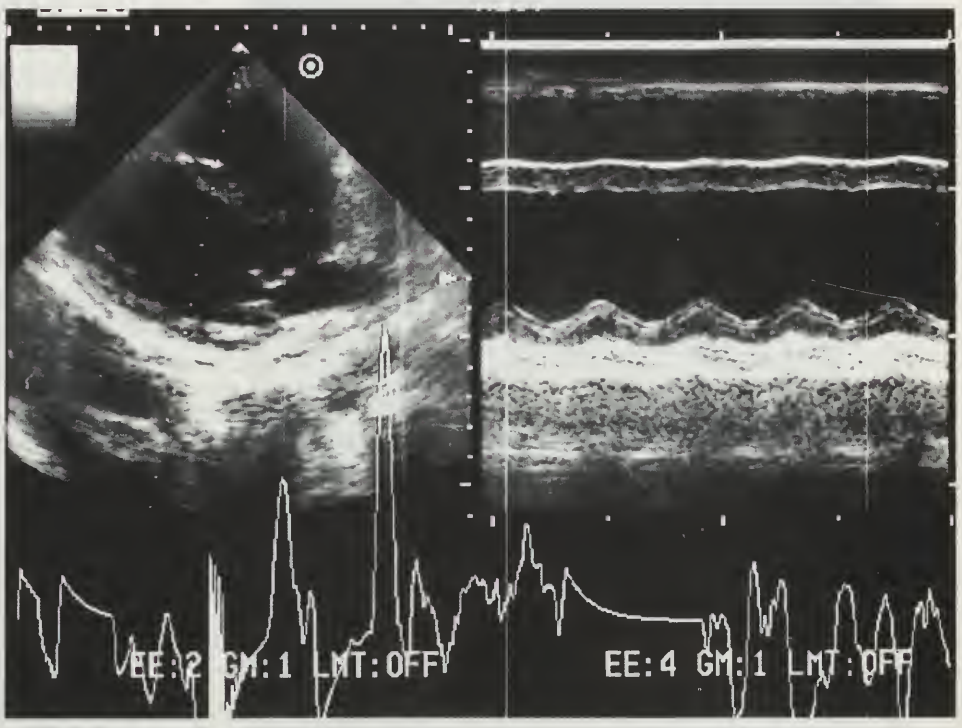


Figure 4. M mode and 2D echo after paclitaxel infusion showing septal akinesia and posterior hypokinesia with significantly reduced LV systolic function. Only a trace amount of pericardial effusion is present.

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The Baltimore Rh Typing Laboratory: fifty years of service

On November 8, 1995, Med Chi joined the Baltimore Rh Typing Laboratory in a celebration of its fiftieth anniversary. Following is a brief history of the Rh Typing Laboratory and the roles of Med Chi and the Baltimore City Medical Society in its foundation.



The original staff of the Baltimore Rh Typing Laboratory, including Elsa Jahn, its first lead technician.

The pathogenesis of hemolytic disease of the newborn was described in 1939. The Rh factor, the cause of hemolytic disease, was described in 1941. Because World War II was then in progress, resources to study and manage the disease were scarce. However, in the fall of 1944, John G. Murray, Jr., M.D., chairman of the obstetrical and gynecological section of the Baltimore City Medical Society, appointed a committee to determine whether a central laboratory could be set up to do Rh typing for all physicians and hospitals. The committee members were Alan F. Guttmacher, M.D., Eleanor Delfts, M.D., and Isadore Siegel, M.D.[1]

Based on the committee's recommendations, and with the cooperation of the Baltimore City Health Department, the Baltimore Rh Typing Laboratory was founded in 1945. Founding board members included Nicholson Eastman, M.D., Dr. Guttmacher, and Dr. Siegel.

Members of the ob/gyn section of the Baltimore City Medical Society provided $1500 in start-up funds for the laboratory, which was initially located at the University of Maryland. The charter of the Rh Lab established it as "a non-profit, tax exempt corporation founded for patient service, research and education in the field of blood groups, their influence on the health of the newborn baby, and the development of knowledge leading to the increased safety of blood transfusions."[2] Initial screening demonstrated that one of every 225 pregnant Rh negative women was immunized and at risk.

In 1946, when the Rh blood group system proved to be the most powerful system to date for paternity testing, the Rh Lab began providing exclusionary data from paternity studies for the state of Maryland. Since then, more than 65,000 paternity tests have been carried out, as well as kinship studies of more than 15,000 potential immigrants to the United States. In 1982, the Rh Lab helped write legislation that permitted blood group tests to be used in providing inclusionary evidence in paternity disputes in Maryland. The following year, testimony by members of the Rh Lab staff led to rulings in Pennsylvania, West Virginia, and elsewhere that paternity test information based on blood groups was admissible in paternity cases. Thus, paternity could be established or ruled out by genetic and statistical evidence. In 1985, the Rh Lab was accredited by the American Association of Blood Banks (AABB) as a parentage test laboratory.

The work of the Rh Lab received national and international recognition. In 1947, a scientific exhibit of its work was awarded first prize at the annual meeting of the Southern Medical Association. Its work was also



Elsa Jahn, laboratory head, works in the original Baltimore Rh Typing Laboratory at the University of Maryland.

demonstrated that year at the American Medical Association's annual meeting, and, in 1949, at the third International Congress of Obstetrics and Gynecology.[2]

In 1948, the Rh Lab established a blood bank to find and store Rh negative blood which could be used in transfusions. During its first year of operation, in response to emergency calls, the blood bank sent out 204 pints of Rh negative blood, most of which were used for women who were obstetrical or surgical cases.[3] By 1960, medical advances made the blood bank unnecessary, but the Rh Lab was one of a handful of AABB-accredited regional reference laboratories for blood bank immunology.

In 1953, the Rh Lab began to supply human sera to pharmaceutical companies, including Merck, Lederle, and Ortho, for use in the manufacture of reagents, and immunoglobulin research. By 1955, half the Rh Lab's revenues were from plasma collections, and an Rh immune globulin donor program was established in 1967.

Funds from the pharmaceutical companies have enabled the Rh Lab to provide grants to post doctorate fellows and scientists and to the Chesapeake Regional Red Cross for blood disease research. Similar grants helped establish Papanicolaou laboratories to screen for cervical cancer at both Baltimore medical schools.

In 1971, the Rh Lab opened an HLA laboratory that was used to match early kidney transplant donors and recipients in Maryland. Ten years later, a therapeutic apheresis program was established jointly with Travenol Corporation. This program initiated the first mobile therapeutic apheresis unit in the state and pioneered use of column adsorption treatment of patients with idiopathic thrombocytopenic purpura. In 1994, the therapeutic apheresis center helped establish a thrombotic thrombocytopenic purpura support group among patients in the United States and Canada.

In 1988, the Rh Lab added DNA profile analysis to its paternity testing menu, and in 1990 expanded its DNA testing services to include forensic DNA.

Today, the Rh Lab remains as described by its first director, Milton Sacks, M.D., "a nonprofit, semipublic health institution which serves the entire community."

ROBERT E. WENK, M.D.

Dr. Wenk is the medical director of the Baltimore Rh Typing Laboratory, medical director of the blood bank at Sinai Hospital of Baltimore, a clinical associate professor at Milton S. Hershey Medical Center, an assistant professor at The Johns Hopkins University School of Medicine, and an associate professor at the University of Maryland.

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Samuel Baker, M.D., founder of the Med Chi library

The long list of benefactors of the Med Chi library includes Fonerden, Cordell, Quinan, Osler, and Noyes. Perhaps its greatest benefactor, however, was the man who planted the acorn from which the present library has grown.

Samuel Baker, M.D., was born in Baltimore in 1785, received his early education at James Priestley's Academy, and then attended Washington College in Chestertown, Maryland. At that time, the school was in a period of regression and he did not obtain a degree. Back in Baltimore, he worked in the apothecary establishment of Dr. Henry Wilkins and then became a student of Drs. Miles Littlejohn and William Donaldson, partners in a Baltimore practice.[1,2]

In 1806, he began attending the University of Pennsylvania and obtained a medical degree two years later, at the age of 23. Although Dr. Baker is not listed as an apprenticed student of Dr. Benjamin Rush, there is some suspicion that the roster of Dr. Rush's apprentices is incomplete.[3] Nevertheless, Dr. Baker must have been exposed to lectures by Dr. Rush, who was then at the height of his teaching career.

For a time in Philadelphia, Dr. Baker was reunited with Peregrine Wroth, with whom he had been a student at Chestertown.[4]

Dr. Baker had an illustrious medical career. Only six months after he started practice, he was chosen to be professor of materia medica at the College of Medicine of Maryland, chartered in 1808 by Davidge, Cocke, Brown, Shaw, Bond, and Donaldson, all of whom were listed as doctors of medicine. Thomas E. Bond, the original professor of materia medica, resigned and Dr. Baker assumed his place on the faculty. He maintained this position until 1833. He also served as dean of the school in 1829–1830.

Dr. Baker enjoyed an active practice in Baltimore for many years, respected by his great number of patients and endeared to his many office students. He was an attending physician at the Baltimore General Dispensary from 1809–1810 and a consultant from 1825–1835.[5] In addition, he served at the Baltimore Almshouse and the Baltimore Female Orphan Asylum. He took an active part in the professional life of the city and its medical societies. He was president of the Baltimore Medical Society, secretary of the Medical and Chirurgical Faculty, and president of the Medico-Chirurgical Society of Baltimore (which met in a rented room at 43 North Calvert Street, the first home of Med Chi).



Perhaps his greatest accomplishment was the creation of the medical library in 1830.[6,7] The need for "promoting and disseminating knowledge throughout the state" mandated by the Maryland Assembly in 1799 had not been fulfilled. At the annual meeting, Dr. Baker resolved that Med Chi form a medical library and purchase standard books of medicine to be placed in a suitable location for the use of its members.

In those days, creation of a library was difficult. Marcia C. Noyes recalled that medical books were precious possessions. Most were brought to the United

Three sons followed Dr. Baker into medicine. William Nelson Baker earned his undergraduate degree at Yale in 1830 and studied medicine at Maryland, obtaining his degree in 1832. Particularly interested in anatomy, he was professor in that department and a lecturer in surgery at the medical school from 1838-1841.

Samuel George Baker graduated from Yale in 1833 and then from the Maryland medical school in 1835. He served as professor of materia medica from 1837 to 1841 and as dean in 1839. He was the editor of the *Maryland Medical and Surgical Journal* in 1839-1840. Alfred Baker, the youngest son of Samuel Baker, obtained a degree in medicine from Maryland in 1845. He died at an early age from smallpox and tuberculosis.

States by packet ship from England and France, and there was a considerable delay between publication and receipt by the reader.[7]

Dr. Baker chaired a committee that comprised the distinguished practitioners and educators Peregrine Wroth, William W. Handy, John Fonerden, and Henry W. Baxley. Fees from licenses totaled several thousand dollars. In addition, Med Chi gave the committee five hundred dollars to buy books. Dr. Fonerden was appointed the librarian. In the first year of activity, 208 applications were made for books exclusive of renewals. In his 1832 report for the Library Committee, Dr. Baker stated that 274 volumes had been imported and added to the collection and the total number of books was 343.

Dr. Baker survived many epidemics of yellow fever and two of cholera. Like many other practitioners of his day, he was deeply religious and attended services regularly. He was described by contemporaries as being a hard worker who was bold, fearless, and untiring. Dr. John Fonerden wrote that Dr. Baker was "courteous, candid, and direct in expression, all of which favored a prompt decision in the nature and treatment of the disease under consideration." Recalling Dr. Baker as an old acquaintance when they were boys at Washington College in Chestertown, Peregrine Wroth considered him to be among the greatest physicians in Baltimore and a Christian gentleman. They maintained their friendship until Dr. Baker's death in 1835.

In 1898, Miss Eloise Baker donated to Med Chi a portrait of her brother painted by Remington Peale. Three years later, she donated one thousand dollars to buy books for the library—a donation that created the first fund for such a purpose since Dr. Baker had founded the library 70 years earlier.

Joseph M. Miller, M.D.
Dr. Miller is a retired surgeon in Timonium, Maryland.

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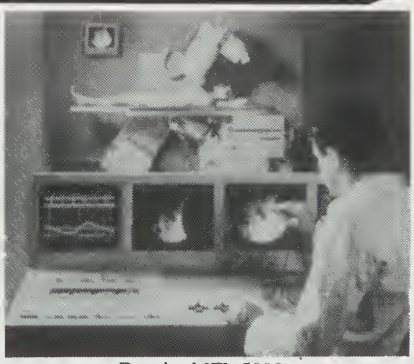
Note: All Monday dates are evening sessions, beginning at 5:00 pm and ending at 9:00 pm. For more information, call Joyce Yensen at Med Chi's Legal Department, 410-539-0872 or 1-800-492-1056, toll free in Maryland.

When the Maryland General Assembly convenes in Annapolis for its 1996 session, the Medical and Chirurgical Faculty will be there. Since 1964, Med Chi has staffed the first aid facility operated during the 90-day legislative session. Come join us at the state capitol building and see law being made firsthand. One doctor a day is all that is needed to care for the public, the legislators, and their staffs. Take this opportunity to donate something priceless -- your time.

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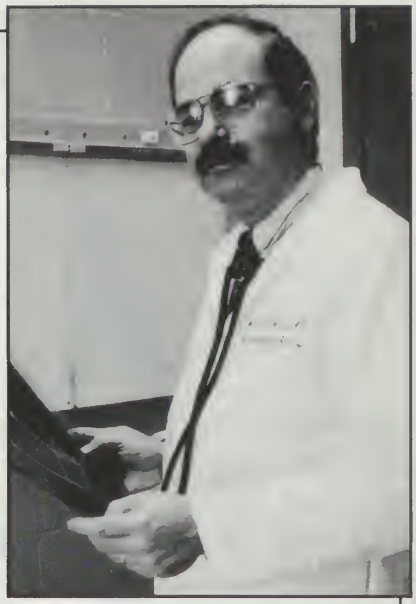
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- "The Estrogen Clock"
  Self, December 1995

Using untrained medical billing staff—is it cost effective?

In an effort to keep down costs in today's managed care environment, many physicians tend to hire untrained employees. When I speak to medical practice employees who are responsible for collecting copayments and posting payments and charges, but who do not know the contractual obligations of the carriers and HMOs with whom the practice contracts or the implications of not knowing, I become concerned. It is ill-advised to hire unqualified staff in the 90s—things are changing too fast! We as managers can barely keep up. How will you find time to train staff from the ground up? You probably will *not* have the time or resources to train them properly. Yet untrained collections and posting staff in your office will not only cost you precious revenue (which will decrease in 1996 and beyond on its own), but can cause the loss of managed care contracts, patients, and potentially cause you serious legal problems (both civil and criminal). In other cases, office managers, either by not having a clear understanding of the contracts (possibly having never read them) or due to pressure by the physicians, fail to comply with specific contract requirements. In either case, everyone suffers.

Although trained personnel may cost more (on the surface) than the untrained, they actually increase income and keep the physician from undergoing audits, federal "educations," and other unpleasant actions.

Payment posters should be able to give a detailed description of every item on an EOB (Explanation of Benefits) to you at any time. Many times, however, posters are left to their own devices and make decisions that severely affect your practice. By the time you find out, the situation could already have developed into a serious issue.

Recently in a Maryland practice, the person posting the payments decided that posting denials or rejections was too time consuming and of little value. Claims were resubmitted to Medicare more than 25 times in many cases. Nobody bothered to *call* Medicare to see why the claims were outstanding; they just resubmitted the claim every thirty days or so. The practice looked like its staff was unskilled in medical billing, staff hours were spent duplicating (over and over) work that had already been completed, claims that could have been corrected and resubmitted were not, and income plummeted—all because the payment poster did not have the proper training to know how it affected the practice. The staff time needed to research and correct the denied claims was extensive. But the payment poster was not involved in straightening out the situation. She couldn't be. She did not have enough experience. The task fell on other employees who had jobs of their own to do.

Charge entry clerks who do not have at least an overview of the coding process can wreak havoc on your claims submissions. If the clerk is not aware that only certain diagnoses can be submitted with certain services, it may be six to eight weeks before you discover the problem and correct it. Certainly, the person who codes your charts should have a thorough knowledge of ICD-9-CM and CPT-4. He or she should have formal training on these coding systems. But your charge entry clerk is your last line of defense before a claim is sent out incorrectly. If it gets by the charge entry clerk, it is gone and forgotten until it returns to your office unpaid several weeks later.

A charge entry clerk once told me, "I put what's written on the encounter form into the computer. I don't question it. I don't know coding and I don't intend to." You do not need people such as this in your practice. They are hurting you every day they sit in your office. Hire an experienced charge entry clerk who knows a headache diagnosis does not attach well to a biliary scan. The extra money for quality will actually cost you less in the long run.

Don't be "penny wise and pound foolish."

C. Sherwood Harris, CCAM
Mr. Harris is the editor of *Keep InforMD* and principal of Health Care Consulting Services. ■

C·M·E·R·C update

The CMERC currently accredits 58 organizations in Maryland (accredited organizations are called *sponsors)*. Most Maryland sponsors are hospitals, but the CMERC also accredits local medical societies, voluntary health organizations, and other medical organizations. Between July 1, 1994, and June 30, 1995, the CMERC:

- reaccredited 16 sponsors;
- placed 3 sponsors on probation;
- conducted 13 on-site surveys;
- conducted 3 reverse-site surveys;
- reviewed 9 interim reports;
- provided 11 consultative visits to sponsors;
- presented a CME workshop at the 1995 annual meeting.

On analyzing the applications, reapplications, and interim reports that were reviewed during the period July 1994 to June 1995, the CMERC found that the following were the deficiencies most often cited:

Essential #1

- The mission statement is not signed and dated by a representative of the governing body.
- The mission statement is not signed and dated by the chair of the CME committee.
- The mission statement is not periodically reviewed and revised as needed.

Essential #2

- Sources and processes of educational needs assessment are not sufficiently documented.
- Insufficient documentation is offered to demonstrate that an identified need was used in planning educational activities.

Essential #3

- Specific learning objectives are not published in brochures and other announcements for the information of prospective attendees.
- The speaker is not informed in writing of the objectives that he/she is being asked to accomplish.
- The CME committee minutes do not contain sufficient documentation that the committee was involved in the development of objectives.

Essential #4

- The CME committee minutes do not contain sufficient documentation of planning procedures.
- The CME committee minutes lack documentation of activity approval and number of credit hours designated.

Essential #5

- The CME committee has not conducted or has not documented a periodic evaluation of the overall CME program.
- The CME committee minutes contain insufficient documentation that evaluation data is used in planning future CME activities.

Essential #6

- Signed speaker disclosure forms are not on file.
- Signed letters of agreement with commercial supporters are not on file.
- A written policy for commercial support has not been developed and approved by the CME committee.
- The required accreditation and designation of CME credit statements are not included in program announcements or are stated incorrectly.

Essential #7

- The CME committee minutes do not include sufficient documentation that the committee was integrally involved in planning, implementing, and evaluating the jointly sponsored activity.

CMERC actions on initial surveys and resurveys 1994-1995

	Accreditation No. of Years				Probation	Termination
	4	3	2	1		
Hospitals	5	1	4	1	3	1
Local medical societies	2					
Other medical organizations	3					2

From the ACCME

The ACCME's Committee for Review and Recognition (CRR), which surveys and recognizes state medical societies as accreditors of CME, accredited Med Chi for four years effective May 1994. At that time, the CRR indicated it would request a progress report from CMERC in about one year. The Progress Report was submitted August 12, 1995, and on September 20, the CRR notified Dr. Nayeem, chairperson of CMERC, that the progress report had been accepted.

Deusdedit L. Jolbitado, m.d.
Member, Med Chi Continuing Medical Education Review Committee ■

The purpose of this column is to inform CME chairpersons, CME committee members, and all interested physicians about the activities of Med Chi's Continuing Medical Education Review Committee (CMERC) and about rules and procedures affecting the implementation of CME programs in Maryland. When appropriate, news from the Accreditation Council for Continuing Medical Education (ACCME) will be included.

In Memoriam

John W. Barnaby, M.D., a general practitioner and general surgeon who retired in 1984, died of pneumonia at his home in Baltimore, November 15, 1995. Born in Cecil County, Dr. Barnaby was a 1928 graduate of The Johns Hopkins University. He earned his medical degree at Hopkins in 1933, then served an internship and surgical residency at Maryland General Hospital. During World War II, he served in the Army Medical Corps, from which he was discharged a captain. He served on numerous committees at Maryland General Hospital and also practiced at Church Home and Hospital and the Wesley Home. A 40-year member of Med Chi, Dr. Barnaby was 89.

Anthony F. Carozza, M.D., a general practitioner who retired in 1988, died August 30, 1995, at St. Agnes Hospital in Baltimore, after a stroke. Dr. Carozza received his medical degree from Georgetown University and interned at St. Joseph Hospital where he later became a staff member. Named coroner in Baltimore City in 1939, Dr. Carozza was a physician for the State Athletic Commission and for the State Insurance Department. In 1947, he became a part-time physician for the accident clinic of the Division of Disability Compensation of the Baltimore comptroller's office. In 1952, he became its medical director. By 1973, Dr. Carozza was medical director of several nursing homes in the Meridian chain. He was a member of several professional and community organizations. Dr. Carozza was 87.

Kevin N. Hennessey, M.D., a neurologist and assistant professor of neurology at The Johns Hopkins University School of Medicine, died October 24, 1995, of colon cancer at his home in Kensington. He was a graduate of Yale University School of Medicine and served fellowships in medicine and neurology at Hopkins. Certified in neurology and internal medicine, Dr. Hennessey was a Navy battalion surgeon from 1968 until 1970. He was discharged with the rank of lieutenant commander. He was president of the medical staff at Laurel Regional Hospital; the hospital's Kevin N. Hennessey Critical Care Unit was dedicated earlier this year. Dr. Hennessey was 54.

Robert A. Riley, Jr., M.D., an Annapolis resident who retired from the practice of obstetrics and gynecology in 1985, died November 15, 1995, of respiratory disease, at Anne Arundel Medical Center. A native of Pottsville, Pennsylvania, Dr. Riley earned his undergraduate degree at Emory University and his medical degree at the University of Maryland School of Medicine. He was in the Air Force from 1946 to 1952, served in Korea as a major, and was awarded the Bronze Star. From 1962 to 1973, Dr. Riley was chief of obstetrics and gynecology at what was then Anne Arundel General Hospital. He also was the founder of Annapolis OB-GYN Associates. An emeritus member of Med Chi, Dr. Riley was 72.

Peter Van Boekel Thorpe, M.D., a former president of the Howard County Medical Society who retired from medical practice in 1980, died September 2, 1995, of leukemia, at his home in Columbia. After a career in business, Dr. Thorpe graduated from the University of Maryland School of Medicine and served an internship at St. Agnes Hospital. When he began his family practice in Ellicott City in 1956, he was one of only eight physicians in Howard County. A staff member at St. Agnes Hospital, Dr. Thorpe was among the first physicians in Maryland to be certified a family practitioner. He was 76.

No additional information was available at press time for the following members:

Roselva T. Dautharthy, M.D.
Baltimore County ..... August 15, 1995

John G. Fawcett, M.D.
Montgomery County ..... July 9, 1995

Abe M. Cohen, M.D.
Affiliate ..... October 4, 1995

Nicholas L. Ballich, M.D.
Baltimore City ..... July 29, 1995

Frederick S. Caldwell, M.D.
Montgomery County ..... October 12, 1995

Adoracion Paulino, M.D.
Baltimore City ..... January 17, 1995

George A. Abeshouse, M.D.
Baltimore County ..... October 1, 1995

William O. La Motte, Jr., M.D.
Kent County ..... August 20, 1995

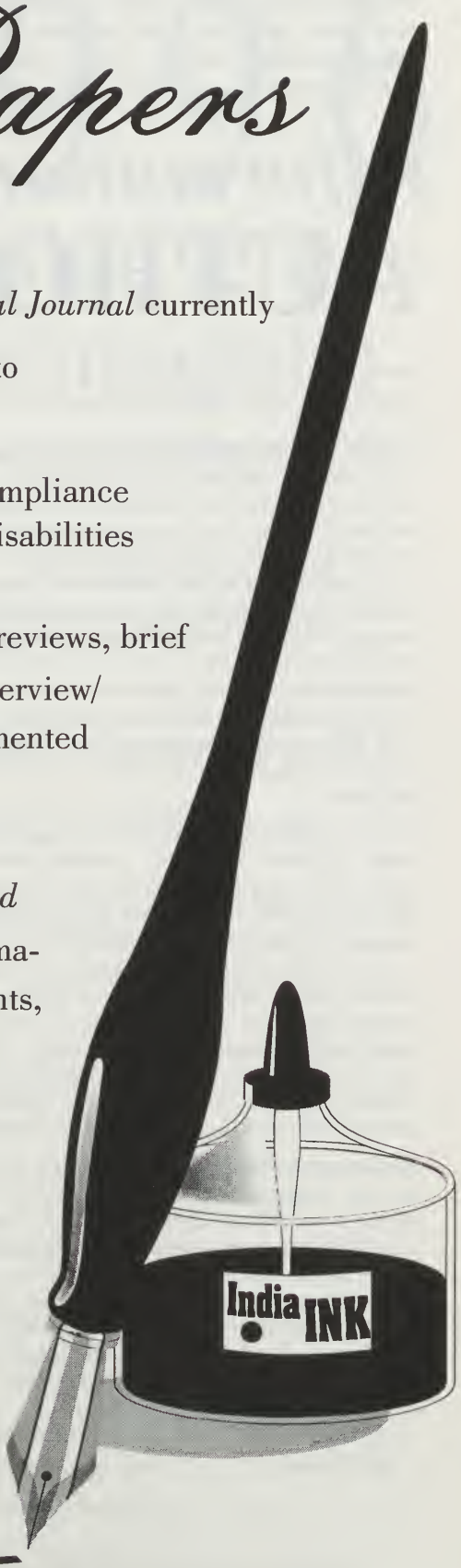
Call for Papers

The Editorial Board of the *Maryland Medical Journal* currently seeks original articles addressing topics related to

- Drug Interactions in the Elderly
- Strategies for Enhancing Therapeutic Compliance
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Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/ summary of the relevant literature, or well-documented opinions about future trends.

All submissions should conform to *Maryland Medical Journal* requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor,
1211 Cathedral Street, Baltimore, MD 21201;
410-539-0872 or 1-800-492-1056;
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The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects), membership and legislative news, continuing medical education notices, and programs and policies of the faculty.*

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  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

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  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

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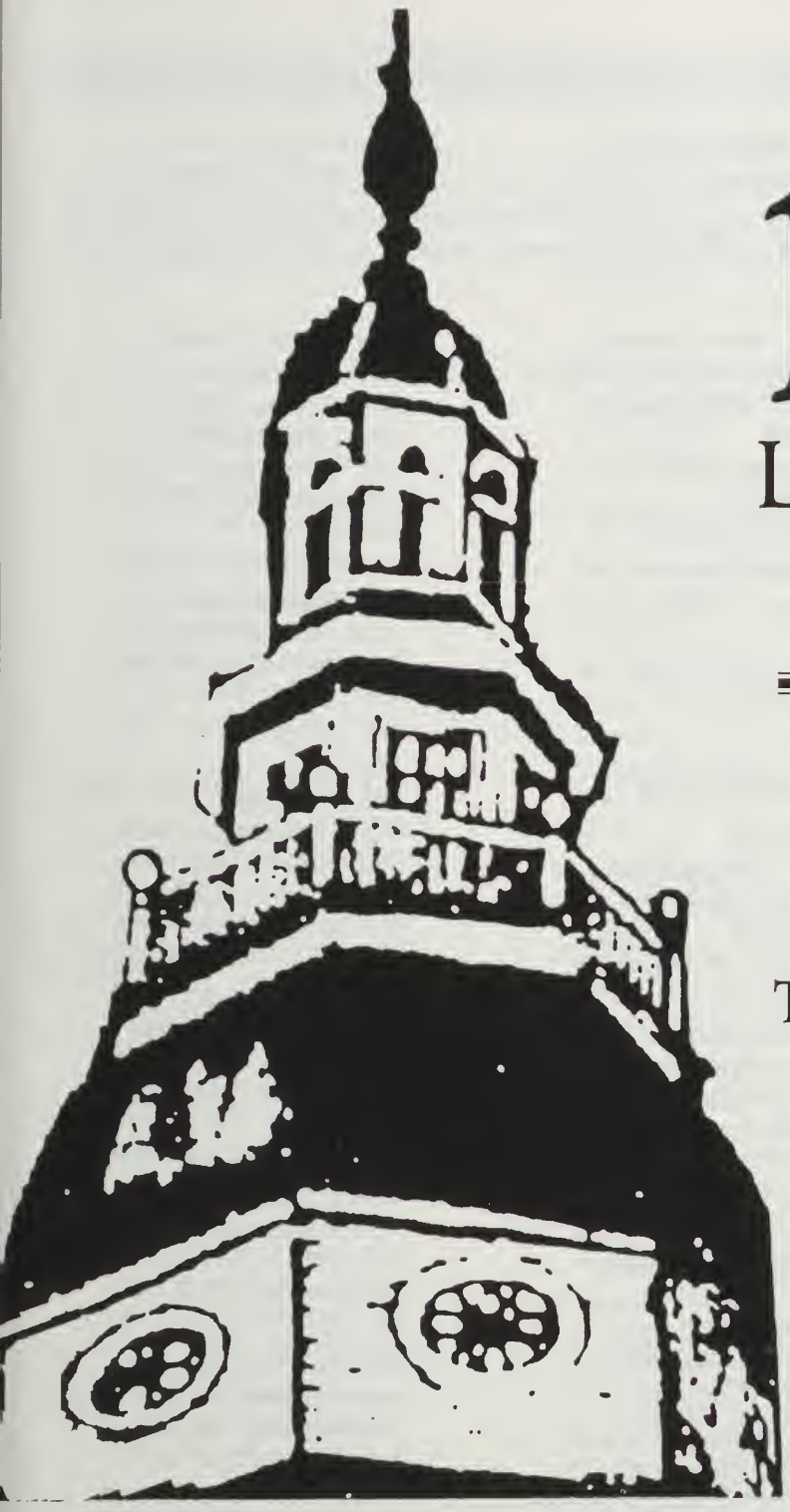
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1996 Legislative Day in Annapolis

For Physicians and Alliance Members

Tuesday, January 30, 1996, 9:00 a.m.

Valet parking available at the Med Chi Annapolis Office, 224 Main Street, Annapolis, Maryland.

Meeting begins in the Joint Hearing Room at 9:00 a.m.

Legislative Update -
Joseph Schwartz, Esq.
Other speakers to be announced.

Lunch with your legislators follows at the Med Chi office (224 Main Street)

For more information call Debbie Sciabarrasi or Jo Ann Troisi at Med Chi 410-539-0872 or toll free 1-800-492-1056.

WELCOME!

The Medical and Chirurgical Faculty of Maryland welcomes the new members listed below. They join an organization with a 197-year history of dedicated service to improving the health and welfare of the people of Maryland. With the help and expertise of longtime members and the participation and input of new members, Med Chi can continue its proud tradition of ensuring quality health care.

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301-754-0578

Greggory J. Woitte
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301-977-8211

AFFILIATES

William A. Godfrey
P.O. Box 660058
Richardson, TX 75081
214-766-6071
IM; BC 020

Miscellaneous meetings

Modern approaches to office emergencies, sponsored by the Maryland Academy of Family Physicians, at the Annapolis Waterfront Hotel, Annapolis, MD. 10 Cat 1 AMA/AAFP credits. Fee: $115/members; $150/nonmembers; $65/allied health professionals. No fee for inactive/life members/residents/medical students. Info: Maria E. Delgado, M.D., 410-747-1980. — **Feb. 3–4**

Cardiovascular conference at Snowshoe, sponsored by the American College of Cardiology, at Snowshoe, WV. 15.5 Cat 1 AMA credits. Info: 1-800-257-4739. — **Feb. 5–7**

Management of the HIV-infected patient: a practical approach for the primary care practitioner, sponsored by the Center for Bio-Medical Communication, at the Waldorf Astoria, New York, NY. 20.25 Cat 1 AMA/PRA/AAFP credits. Info:Awilda Pinillos, 201-385-5650. — **Feb. 16–18**

Creativity: its relationship to psychopathology and treatment, at Sheppard Pratt Conference Center, Baltimore, MD. 5.2 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. — **Mar. 23**

Annual Maryland Thoracic Society research dinner and scientific session, "Obstructive diseases of the lung," at the Belvedere and the Stouffer Renaissance Harborplace hotels, Baltimore, MD. Info: Anne Eder, 410-560-2120, ext. 206. — **Mar. 23–24**

Clinical psychopharmacology: review and update—1996, at Sheppard Pratt Conference Center, Baltimore, MD. 13.58 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. — **April 12–13**

Sixth annual current concepts in orthopaedics, sponsored by the Southern Medical Association, at the Omni Harbor Hotel, Baltimore, MD. Cat 1 AMA credits available. Fee: $295/SOA members; $395/SMA members; $495/all other physicians; $50/residents/fellows; $100/nonphysicians. Info: Michelle Williamson, 205-945-1840. — **May 16–18**

48th Annual meeting, scientific session & exposition, sponsored by the Maryland Academy of Family Physicians, at the Sheraton Fontainebleau Hotel, Ocean City, MD. 26.5 Cat 1 AMA/AAFP credits. Fee: $280/members; $325/nonmembers; $110/allied health professionals. Info: Leonard H. Raucher, M.D., 410-747-1980. — **May 16–19**

Continuously throughout the year

American College of Cardiology, The Heart House Learning Center, Bethesda, MD. Info: 1-800-257-4737.

Problem solving in interventional cardiology.	**Jan. 8–10**
Interventional echocardiography: transesophageal, exercise, pharmacologic and intravascular—emphasizing case studies.	**Jan. 18–20**
Congenital heart disease in adolescents and adults.	**Jan. 22–24**
Advanced echocardiography: Illustrative case studies and latest techniques.	**Feb. 5–7**
Molecular biology for the cardiologist.	**Feb. 21–23**
Advanced clinical cardiac electrophysiology.	**Feb. 26–28**
Cardiovascular surgery: challenging management problems in coronary artery diseases, valvular heart disease and thoracic aortic pathology.	**Feb. 26–Mar. 2**
Echocardiography for sonographers and cardiology trainees: 2-D/Doppler, color flow imaging, TEE and stress echo— practical review.	**Mar. 7–9**

Miscellaneous meetings (continued)

Echocardiography in coronary artery disease: live demonstration and interpretations of exercise and pharmacologic stress echo.	**April 10–12**
Advanced pediatric cardiac ultrasound.	**April 15–17**
Cardiac pacing—1996: new indications for pacing, rate adaptive pacing updates, update on cardioversion-defibrillation.	**April 18–20**
Transesophageal echocardiography: live demonstration of technique, image orientation, interpretations, and current and evolving applications of biplane and multiplane TEE.	**April 24–26**
Echocardiography as we approach the year 2000—teleconference.	**April 27**
Aggressive management of cardiovascular emergencies featuring the role of urgent echocardiography.	**May 1–3**
Nuclear cardiology for the technologist.	**May 6–8**
Recent advances in clinical nuclear cardiology featuring case review with the experts.	**May 9–11**
Pediatric cardiac catheterization update—1996.	**May 13–15**
Echocardiography: a clinical review—emphasis on TEE, stress echo and Doppler hemodynamics.	**May 23–25**

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 A.M.. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, in the Zamoiski Auditorium, Thursdays 9:00–10:00 A.M. Info: 410-578-5528.

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

11th Annual frontiers in research and clinical management of asthma and allergy, at the Asthma & Allergy Center, Johns Hopkins Bayview Campus, Baltimore, MD. 15 Cat 1 AMA credits. **Jan. 19–21**

23rd Annual geriatrics symposium: a board review, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 27 Cat 1 AMA/AAFP credits. Fee: $595/physicians. **Jan. 24–27**

Basic endoscopic sinus surgery, Cat 1 AMA credits pending. Fee: $895/labs and lectures; $350/lectures only. **Jan. 25**

Advanced endoscopic sinus surgery, Cat 1 AMA credits pending. Fee: $1495/labs and lectures; $550/lectures only. **Jan. 26–27**

13th Annual gastroenterology update: multidisciplinary approach, 19 Cat 1 AMA credits. Fee: $495/physicians; $375/residents, fellows, allied health professionals. **Jan. 28–Feb. 2**

The Johns Hopkins Medical Institutions (continued)

13th Annual Houston Everett Memorial course in urogynecology, 17 Cat 1 AMA credits.	**Feb. 23–24**
37th Annual postgraduate institute for pathologists in clinical cytopathology, 95.5 Cat 1 AMA credits plus up to 22 hours of video instruction. *Registration must be received by Mar. 26, 1996.*	
Course A (home study)	**Feb.–April**
Course B (Johns Hopkins Medical Institutions, Baltimore, MD)	**April 15–26**
Hemodynamic monitoring. 14.5 Cat 1 AMA credits. Fee: $750.	**Mar. 1–2**
Perioperative management: a course designed for practitioners to limit patient risk by proper pre- and postoperative evaluation and care, 20 Cat 1 AMA credits. Fee: $495/physicians; $450/residents, fellows and CRNAs.	**Mar. 3–6**
Spectrum of developmental disabilities XVIII, 20 Cat 1 AMA credits.	**Mar. 18–20**
15th Mid-Atlantic regional meeting of the Society of General Internal Medicine, Cat 1 AMA credits available. Fee: $100; $30/residents and fellows.	**Mar. 22**
PET and SPECT imaging in cancer diagnosis and treatment, 18.5 Cat 1 AMA credits. Fee: $495/physicians; $395/residents, fellows, allied health professionals.	**Mar. 25–27**
Nuclear oncology, 19 Cat 1 AMA credits.	**Mar. 25–27**
Diagnosis and treatment of neoplastic disorders, 14 Cat 1 AMA credits. Fee: $300/postmarked by Feb. 1, 1996; $325/physicians; $150/residents, fellows, allied health professionals.	**Mar. 28–29**
Biological response to orthopaedic implants, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 12 Cat 1 AMA credits.	**April 12–13**
24th Annual pediatric trends, 42 Cat 1 AMA credits. Fee: Postmarked by Feb. 15, physicians/$650; allied health professionals/$450. Postmarked after Feb. 15, physicians/$695; allied health professionals/$495.	**April 15–20**
Tenth annual mood disorders symposium, 5 Cat 1 AMA credits.	**April 23**
Pediatric allergy and immunology for the practitioner, 14.5 Cat 1 AMA credits.	**April 25–26**
The first international conference on the exstrophy-epispadias complex	**May 1–2**
13th Annual Wilmer nursing conference	**May 3**
Critical issues in surgical pathology	**May 3–4**
41st Annual topics in clinical medicine, 40 Cat 1 AMA credits.	**May 13–17**
Basic concepts in dysphagia diagnosis and management, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $185/physicians; $120/allied health professionals.	**May 29**
Sixth multidisciplinary symposium on dysphagia, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 14 Cat 1 AMA credits. Fee: $425/physicians; $245/residents and allied health professionals.	**May 30–31**
Clinical trials, 15 Cat 1 AMA credits.	**June 4–5**
Interface of biomechanics and cell biology in orthopedics.	**June 6–8**
Advanced pediatric life support, 20 Cat 1 AMA credits.	**June 10–12**
Age-related macular degeneration: update 1996.	**June 14--15**

The Johns Hopkins Medical Institutions (continued)

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of case discussions by a different presenter on the first Thursday of each month. Info: Carol Kelly, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Surgical dilemmas in glaucoma management, at the Sheraton Inner Harbor Hotel, Baltimore, MD. 7 Cat 1 AMA credits. **Feb. 23**

PHYSICIAN'S RECOGNITION AWARD

During October 1995, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

Robert L. Batsleer
Paul A. Dorn
Mehdi P. Farzin
Azher Hussain
Mahmood Jaberi
Christian E. Jensen
Dae S. Koh
William R. Linthicum
Cornelius C. Maher
Glenn G. Marinelli
John E. Ott
Ram K. Rastogi
Walter Reich
David Satinsky
Inder Singh
Michael R. Spieker

University of Maryland School of Medicine

Glaucoma diagnosis and management for ophthalmic medical personnel, at the Sheraton Inner Harbor Hotel, Baltimore, MD (didactic session); UMMS dept. of ophthalmology (workshops). Cat 1 AMA credits available. Fee: $85. Info: Sharon Stenhouse, 410-706-3958; Mary Ann Millar, COMT, 410-328-6533. **Feb. 23**

Self-directed CME activities

Optimal dosing in chemotherapy: adoptive control with carboplatin, video tape, monograph and test. Expires March 1996. 3 Cat 1 AMA credits. Info: 212-924-3044.

U.S. medical costs and values: primary prevention versus end stage treatment, monograph and test. Expires Aug. 1996. 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interactions: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

PHYSICIAN PLACEMENT SERVICE

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral Street
Baltimore, MD 21201
410-539-0872
1-800-492-1056

Physicians wishing to locate in Maryland are invited to submit a résumé to be kept on file with the Physician Placement Service. Candidates are requested to inform the Faculty when they are no longer available for consideration opportunities in Maryland.

MMJ announcements for physician placements in the classified advertisements are charged at the regular classified advertising rate.

Physicians, Residents, and Medical Students:

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FACT

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FACT

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Parris N. Glendening - Governor of Maryland

Martin P. Wasserman, M.D., J.D., Secretary
Department of Health and Mental Hygiene

J. Mehsen Joseph, Ph.D., Director
Community Health Surveillance & Labs Admin

Ebenezer Israel, M.D., M.P.H., Director
Epidemiology and Disease Control Program

DHMH Maryland Department of Health & Mental Hygiene

EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

201 West Preston Street, Baltimore, Maryland 21201 (410) 225-6700

January, 1996
Tuberculosis: Conquering Medicine's Airborne Albatross

Consider this:

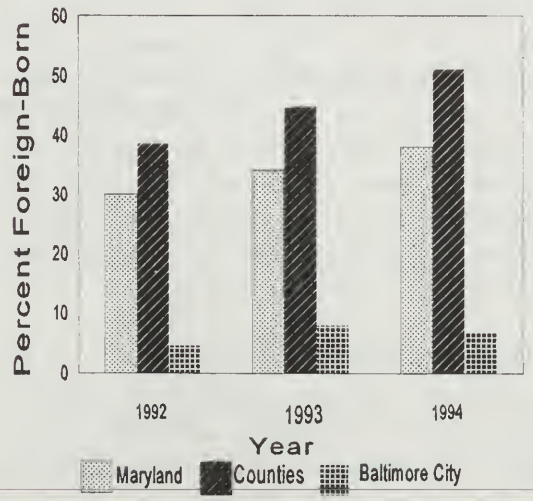
- Tuberculosis (TB) is the number one respiratory infectious disease killer in the world.
- After a decades-long decrease from 1953 through 1984 in the number of TB cases reported annually in the United States, tuberculosis has reemerged as a serious national public health problem, with approximately 64,000 more cases reported through 1993 than would have been predicted had the trend of the decline from 1980 through 1984 continued.[1]
- In outbreaks of multidrug-resistant tuberculosis (MDR-TB) investigated by the CDC more than 100 health care workers have had tuberculin skin-test conversions indicating recent infection, at least 17 have developed active MDR-TB, and at least 6 have died.[2]
- Treatment of tuberculosis must be viewed as both a personal health measure intended to cure the sick patient, and as a public health measure intended to interrupt the transmission of tubercle bacilli in the community.

Epidemiology:

In 1994, 362 cases of tuberculosis in Maryland were reported -- the lowest number of cases reported since 1986. The case rate was 7.3 per 100,000 population. This compares with a national U.S. case rate in 1994 of 9.4 per 100,000 population and a total of 24,361 reported cases.

In 1994, the highest rate of tuberculosis in Maryland occurred among Asians (53.7 per 100,000); followed by Hispanics (17.6), blacks (13.5), and whites (3.0). Non-Hispanic blacks made up 44% of the cases, followed by whites (27%), Asians (20%), and Hispanics (6%). The foreign born constitute an increasing percentage of Maryland TB cases: 38% in 1994 and 44% to date in 1995. (See Figure 1. Percent of Maryland Tuberculosis Cases Who are Foreign-Born, 1992-1994.)

Figure 1. Percent of Maryland Tuberculosis Cases Who are Foreign-Born, 1992-1994



HIV infection occurred in 10% (39) of the cases in 1994 compared to 9% (41) in 1993. Multi-drug resistant TB is not a significant problem in Maryland at the present time, comprising less than 1% of all cases over the past three years. However, the proximity of Maryland counties to the District of Columbia, where MDR-TB rates have been reported as high as 12%, increase the concern that drug resistant strains will become a problem in Maryland.

Treatment of tuberculosis:

The treatment of tuberculosis is based on three basic principles: 1) regimens for treatment of the disease must include multiple drugs to which the organism is susceptible; 2) the drugs must be taken regularly; and 3) drug therapy must continue for a sufficient period of time.

Treatment of tuberculosis in Maryland includes the following key elements: utilization of a four-drug initial regimen, directly observed therapy (DOT), drug sensitivities on all initial cultures, and routine consultation with the local health department. The goal is to provide the safest and most effective treatment over the shortest period of time.

● The utilization of a four-drug regimen is based on the rationale that if the patient has acquired a resistant strain of TB further resistance can be prevented by initially placing the patient on at least two drugs to which the organism is fully susceptible. Exceptions to the four-drug regimen may be appropriate for very small children and some adults. Deviations from the recommended standard regimen should only be made after consultation with a TB expert. (See Table 1: Standard Adult Treatment for Uncomplicated Tuberculosis - State of Maryland.)

● Directly Observed Therapy (DOT) is the observation by a trained health care worker of every dose of medication administered to a patient. DOT is the national and state standard of care for treatment of TB patients. All local health departments can provide DOT through direct management of the patient's case or through co-management with the private physician. As part of the DOT program the patient will be monitored for response to therapy and evaluated regularly for any adverse reactions to the medications.

DOT can be provided in a variety of settings, and local health department DOT nurses and outreach workers have had remarkable success with even the most reluctant patients. DOT ensures that patients complete an effective course of treatment that cures them of their TB. Rates of DOT have risen dramatically in Maryland to 77% in 1994. In 1994, 87% of Maryland TB patients completed treatment compared to the national average of 77%.

● Drug sensitivities must be obtained on all initial culture isolates for TB to detect any resistant strains and adjust the medication regimen accordingly. Culture conversion from positive to negative should occur within three months of initiation of an appropriate drug regimen. Sputum cultures should be obtained on a monthly basis for pulmonary TB until culture conversion occurs. Sensitivities should be obtained whenever a patient fails to respond clinically to the standard regimen, or fails to convert cultures within 3 months. Any pattern of drug resistance should be discussed with the local health department. Consultation with state and national TB experts can be made available.

● Physicians are required by law to report any suspected or confirmed case of TB to the health department, and encouraged to utilize the resources of the local health department in management of their patients. Physicians whose patients are not being managed directly by, or co-managed with the local health department will be asked to provide information about their patients on a regular basis to the local TB control program. Questions that arise regarding a particular case are referred to the Division of TB Control at the state level for review. Local health departments assume the responsibility for managing contact investigations.

Laboratory resources:

The Maryland State Mycobacteriology Laboratory is a Level 3 laboratory offering a complete range of laboratory services for disease due to mycobacteria including the isolation of mycobacteria from specimens, identification of organisms, and drug susceptibility testing. The Bactec ® system is used for rapid identification and sensitivity testing. DNA-probe (Gen-Probe®) is used for rapid identification of *M. tuberculosis* and *M.avium* complexes. Three to five early morning sputum specimens collected on consecutive days should be submitted on any new TB suspect case, and sent to the laboratory within 24 hours of collection. Free specimen containers can be obtained by calling (410) 225-6120.

• Results of the microscopic examination are reported within 24 hours of processing. *M.tuberculosis* complex can be isolated and identified within 14 days, and radiometric susceptibility results within 18 days of receipt of the specimen. Time frames may be shorter depending on the quality of the specimen and its smear positive status. Susceptibility testing is routinely done on all new TB isolates. Positive results are reported to physicians by telephone and in writing.

Infection Control and Respiratory Protection:

A high index of suspicion for tuberculosis is the key to preventing further spread. Persons suspected of having active TB should be confined to home or isolated until their infectious status is determined. Isolation should be continued until three negative smears for acid fast bacilli have been obtained.

● In July, 1995 the National Institute for Occupational Safety and Health (NIOSH) updated requirements regarding respirator testing and certification. New, more comfortable respirators that contain a NIOSH certified N-series filter with a 95% efficiency (N-95) rating are appropriate for use in accordance with CDC guidelines. Fit testing remains a requirement to ensure an effective face seal that prohibits the intake of unfiltered (contaminated) air.

Skin Testing:

The Mantoux tuberculin PPD test is recognized nationally as the standard of care for tuberculin skin testing. Multiple-puncture tests (Tine tests) are no longer recommended -- even for children -- because the amount of tuberculin delivered is not standardized leading to unreliable results. Patients (or parents) should not be allowed to interpret any tuberculin skin test. Tuberculin skin testing is not contraindicated during pregnancy, and no adverse effects to the fetus from PPD skin testing have been demonstrated.[3] A future article will address the complex issues related to skin test interpretation and preventive therapy.

Important Numbers:

●Division of TB Control, EDCP, DHMH, State of Maryland (410) 225- 6698
●State of Maryland Mycobacteriology Laboratory (410) 225- 6128
●http://www.charm.net/~epi1

References:

1. **Centers for Disease Control and Prevention.** Core Curriculum on Tuberculosis, Third Edition. U.S. Department of Health & Human Service. Atlanta, Georgia. 1994: 11
2. **Jarvis, WR.** Nosocomial transmission of multi-drug resistant *Mycobacterium tuberculosis.* Res. Microbiol. 1993; 144:117-22
3. **Hueber,R.,et.al.**, The Tuberculin Skin Test. Clinical Infectious Diseases. 1993:17: 968-75

STANDARD ADULT TREATMENT FOR UNCOMPLICATED TUBERCULOSIS - STATE OF MARYLAND *

Drug Therapy - DOT** (maximum dose)		Therapy by Month: wk1	wk2	wk3	wk4	1	2	3	4	5	6
INH***	Daily dose = 5mg/kg (300mg/day)	✔	✔								
	2x /week = 15mg/kg (900mg/day)			✔	✔	✔	✔	✔	✔	✔	
RIF ***	Daily dose = 10mg/kg (600mg/day)	✔	✔								
	2x/ week = 10mg/kg (600mg/day)			✔	✔	✔	✔	✔	✔	✔	
PZA***	Daily dose = 15-30mg/kg (2g/day)	✔	✔								
	2x/ week = 50-70mg/kg (4g/day)			✔	✔	✔					
EMB***	Daily dose = 15-25mg/kg	✔	✔								
	2x/ week = 50mg/kg **OR**			✔	✔	✔					
SM ***	Call your local health department for dose and schedule										

Discontinue PZA and EMB if isolate is sensitive to both INH and RIF.

If resistant to INH and/or RIF, call local health department.

MEDICAL MONITORING (months)	Baseline	1	2	3	4	5	6
Chest xray	✔						✔
Sputum smear and culture	✔ (May return to work if 3 consecutive negative smears. Cultures q month until conversion. If positive at 3 months repeat chest xray and drug sensitivities)						
Hepatic enzymes, bilirubin, serum creatinine, CBC, platelets, serum uric acid	✔ (Baseline and monthly if patient has hepatic or renal disease or gout. Black and Hispanic women should have hepatic enzymes monitored throughout treatment.)						
Medical evaluation	✔	✔	✔	✔	✔	✔	✔
Vision/red-green color (for EMB);Audiogram (for SM)	✔	✔	✔(Continue monthly check if EMB/SM continued)				

* For Maryland standards regarding the treatment of children, HIV positive individuals, treatment during pregnancy, drug resistance or intolerance, and other special conditions contact your local health department or the state TB Control office at (410) 225-6698.

** DOT = Directly Observed Therapy. Available through all local health departments.

*** INH = isoniazid, RIF = rifampin, PZA = pyrazinamide, EMB = ethambutal, SM = streptomycin. All medication doses should be based on weight and adjusted as weight changes.



Technique Impairment in Musicians

Med Chi Faculty Building
1211 Cathedral Street
Baltimore, Md. 21201

January 16, 1996
12:45-5:00 p.m.

This seminar will focus on the acquisition, measurement, and loss of technical skill in musicians. Neuromuscular programming of the complex sequence of movements and fine motor control required to play a musical instrument will be explained. The devastating effects of repetition strain syndromes, particularly overuse, on technique will be reviewed. The musician's acquisition of technical skill through long years of practice and the potential for its measurement will also be discussed from a pedagogical standpoint.

The final results of a joint National Institutes of Health-Catholic University project using computer programs with MIDI capabilities to analyze loss of technical skill in overuse patients will be presented. Projects such as this open the way for measurement of skill acquisition, as well as deterioration. Research into these topics holds great potential for health professionals treating musicians with technique impairment and music educators teaching talented instrumentalists.

Specific topics to be discussed are:

- **Neuromuscular Programming and Technical Skill**
  Mark Hallett, M.D., Clinical Director, National Institute of Neurological Disorders & Stroke, Bethesda, Maryland
- **Acquisition and Measurement of Technical Skill from a Pedagogy Perspective**
  Thomas Mastroianni, Mus.D., Chairman of Piano, Catholic University, Washington, DC
- **Overuse Syndromes and Technique Impairment in Musicians**
  Hunter J. H. Fry, M.S., F.R.C.S., F.R.A.C.S., D.M.A., plastic surgeon, Kew, Victoria, Australia
- **Use of Conditioning and Physical Fitness to Prevent Neuromuscular Problems**
  David Shulman, RPT, physical therapist, Towson, Maryland

For more information, contact Susan Harman, Music Medicine Clearinghouse Coordinator, at 410-539-0872, 1-800-492-1056 in MD, FAX 410-727-5967, e-mail techserv@access.digex.net

PHYSICIAN WANTED

BC/BE pediatrician needed for unique position at Anne Arundel Medical Center in Annapolis, MD. Excellent salary and benefits package, plus equity opportunity. For more information, call Dwight Fortier, M.D., at 410-263-1054, or Ken Gummerson, M.D., 410-267-1290.

PHYSICIAN WANTED

Maryland hunt country. Established family practitioner seeking partner/associate to join rural practice. One-story, historic office on 3 acres 15 miles south of Annapolis. Contact Dr. C.H. Wirth, Box 207, West River, MD 20778.

PHYSICIAN WANTED

Assistant surgeon sought for active and expanding adult cardiothoracic surgery practice located in northern suburban Baltimore County. Major responsibilities will be to assist four surgeons in the operating room. Maryland license mandatory. Board certification or eligibility in general surgery desirable. Generous salary and fringes. Position is immediately available and can be permanent. Please direct inquiries to Garth R. McDonald, M.D., 7505 Osler Drive, Suite 306, Towson, Maryland 21204; 410-296-2502.

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Another study joins the growing literature indicating that the **use of prophylactic antimanic agents during the postpartum period may prevent or minimize relapse in women with bipolar disorder.** Researchers at the Perinatal and Reproductive Psychiatry Clinical Research Program at Massachusetts General Hospital followed during pregnancy and the puerperium the clinical course of 27 women who met DSM-III-R criteria for bipolar disorder. All subjects had experienced at least one nonpuerperal bipolar episode and 23 (85%) had had more than three episodes of mania or depression. Of the 11 multiparous subjects, 4 had histories of puerperal psychosis and 7, histories of nonpsychotic puerperal depression. Of the 14 subjects who received prophylactic antimanic agents during the first 48 hours postpartum, 11 continued ongoing treatment and 3 resumed lithium treatment. Only one of the 14 women taking prophylactic agents experienced a relapse within the first three months postpartum. Of the 13 women who did not receive postpartum antimanic treatment, eight showed evidence of recurrent affective instability. The babies of the women who took lithium during pregnancy, labor, and delivery showed no evidence of neonatal lithium toxicity (*Am J Psychiatry* 1995; 152:1641–1645).

To determine the effectiveness of aspirin in preventing ischemic events in patients with neurologically asymptomatic carotid stenosis, Canadian researchers conducted a double-blind trial in 372 patients with carotid stenosis of 50% or more in at least one artery. The high degree of carotid stenosis was determined by luminal diameter reduction on duplex ultrasonography. Patients were randomly assigned to receive enteric-coated aspirin 325 mg/d (N = 188) or placebo (N = 184). Mean duration of treatment was 1.9 years for aspirin and 2.0 years for placebo. Mean duration of follow-up was 2.4 years. Outcome events were transient ischemic attack, stroke, myocardial infarction, unstable angina, or death. **Results indicate aspirin provides no sustained protective effect in asymptomatic patients with advanced carotid stenosis** (*Ann Intern Med* 1995;123: 649–655).

Results of a 1-year prospective study involving 63 women aged 44 to 54 indicate that **hormone replacement therapy neither prevents nor increases early postmenopausal weight gain and fat accumulation, although it may lessen the tendency for a shift from peripheral to central fat distribution.** Subjects comprised two groups: 34 women who began continuous estrogen and progestin treatment, and 29 women who refused hormone replacement therapy. Comparison factors, similar in both groups, were anthropometric measurements (weight, body mass index, fat mass, waist-to-hip girth ratio) and daily food intake (total calories and food composition). Body weight and fat mass increased significantly in both groups, but there was a significant change in the waist-to-hip ratio only in the group not receiving hormone replacement therapy. Noting that central fat distribution has been recognized as an independent predictor of cardiovascular disease and breast cancer, the investigators suggest that some of the cardioprotective effect of hormone replacement may be due to its effect on body fat distribution (*Fertil Steril* 1995;64:963–968).

CiteSEER

A preliminary, open-label study of adjunctive fluoxetine (**Prozac**) in 17 outpatients with epilepsy supports earlier findings that fluoxetine **may enhance the antiepileptic effect of some anticonvulsants.** The study included 9 men and 8 women aged 18 to 56. All had complex partial seizures that frequently evolved to generalized seizures (14 had daily, 2 had weekly, and 1 had monthly seizures). Five patients were being treated with carbamazepine, 11 with phenobarbital plus carbamazepine, and 1 with phenobarbital plus valproic acid. Fluoxetine 20 mg/d was added to each patient's regimen. At the end of follow-up (mean duration 14 ± 1.1 months), 6 patients showed complete disappearance of daily seizures; in the others, seizure frequency was lowered by 30%. Polarization fluoroimmunoassay showed the addition of fluoxetine produced no significant changes in the mean serum values of the antiepileptic drugs. No side effects were reported (*Neurology* 1995;45:1926-1927).

Studies in both animals and humans indicate that psychological stress adversely affects a number of features of immune function and can increase vulnerability to infectious disease. **Because the immune system has an important role in wound healing, a group of Ohio investigators studied the effects of stress on wound healing in women who had undergone a 3 to 5 mm punch biopsy.** Subjects were 13 women caring for a relative with Alzheimer disease and 13 controls matched for age and family income. Healing of the biopsy wound was assessed by photography and the response to hydrogen peroxide. **Wound healing took an average of nine days longer in care givers than in controls.** The authors conclude that defects in wound repair could have important clinical implications, especially for surgical recovery (*Lancet* 1995;346:1194-1196).

Results of a questionnaire study to describe the gynecologic history of women who had undergone surgery for inflammatory bowel disease indicate that menstrual abnormalities, vaginal discharge, infertility, and gynecologic surgery are common in this population. Fecal incontinence was reported by 61% of the study subjects. **An unexpected finding,** however, **was** reports of a sense of **rectal urgency with intercourse and fear of and/or occurrence of fecal incontinence during intercourse.** These problems were reported in answer to an open-ended question about "any other problems with sex." The investigators suggest that physicians who care for such patients recognize that shame or embarrassment may prevent their volunteering this information (*Obstet Gynecol* 1995;86:843-847).

Results of a prospective observational study of 17 patients who had received mechanical ventilation for 5 to 67 days indicate that **myocardial ischemia occurs frequently in ventilator-dependent patients and** that **the presence of ischemia is associated with failure to wean from mechanical ventilation.** Noting that the study subjects were elderly (age 70 ± 9 years), often had a prior history of cardiac and/or chronic pulmonary disease, and required prolonged ventilatory support, the investigators conclude that aggressive diagnosis and treatment of myocardial ischemia may be an important component in weaning ventilator-dependent patients (*Crit Care Med* 1995;23:1475-1480).

In a recent issue of the *Journal of the American Board of Family Practice* (1995;8:305-316), Drs. Culpepper and Froom discuss the AHCPR Guidelines on Otitis Media with Effusion in Young Children. Although they clearly disagree with some of the advice, they provide an insight into how the clinical practice guidelines are developed. They conclude that an even less aggressive approach may be appropriate and that when symptoms, quality of life issues, and family preferences are considered, no treatment may be the most appropriate decision for the asymptomatic child with OME.

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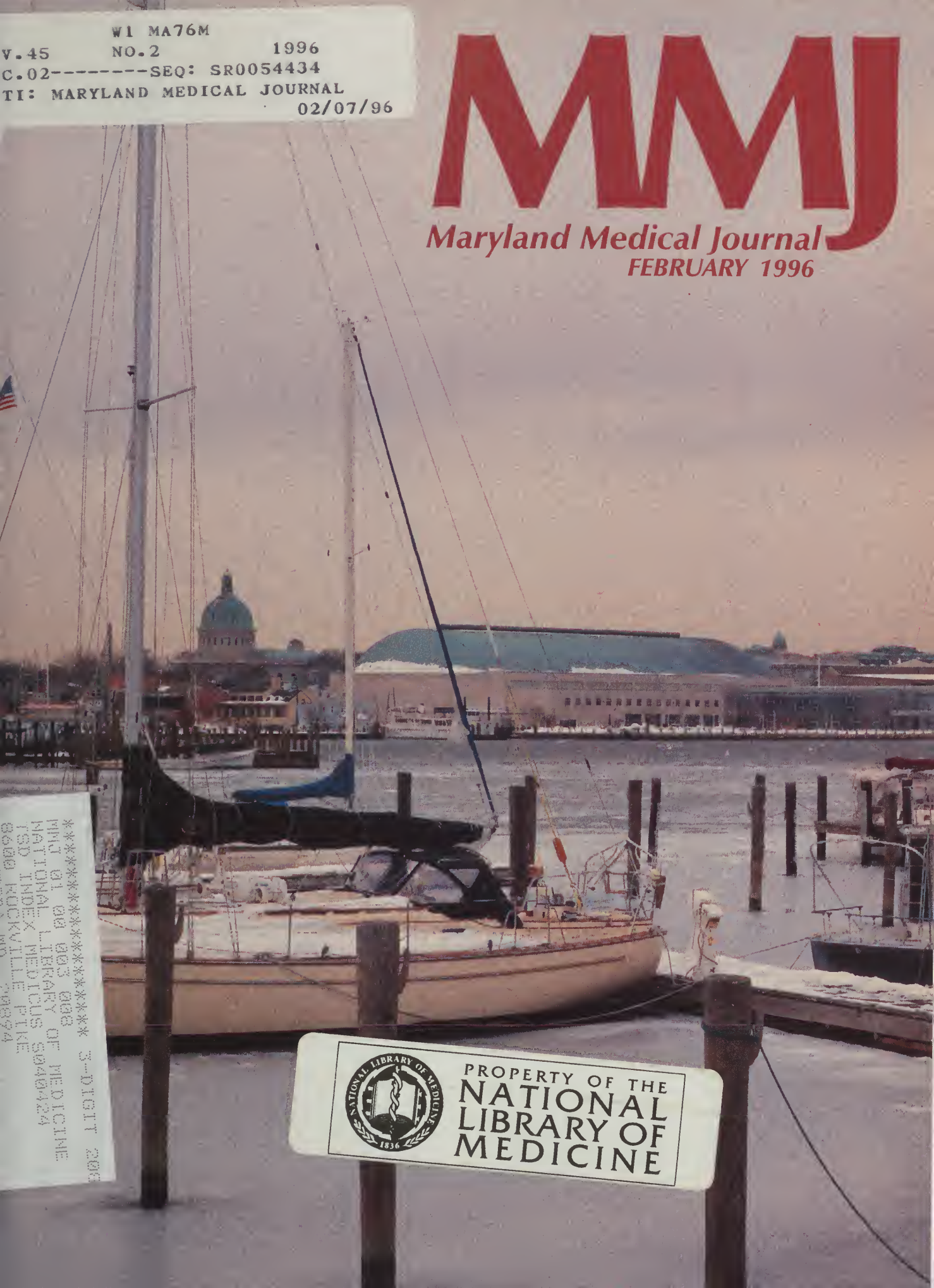
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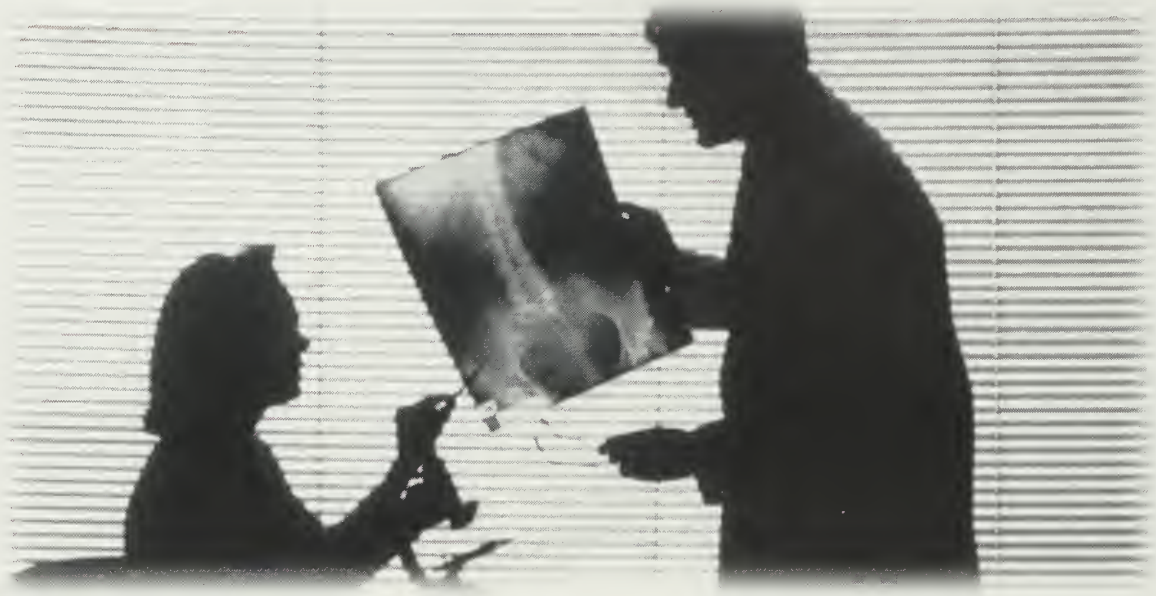
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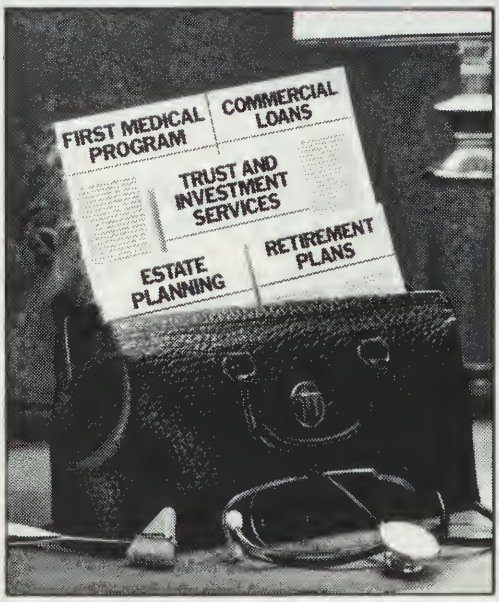
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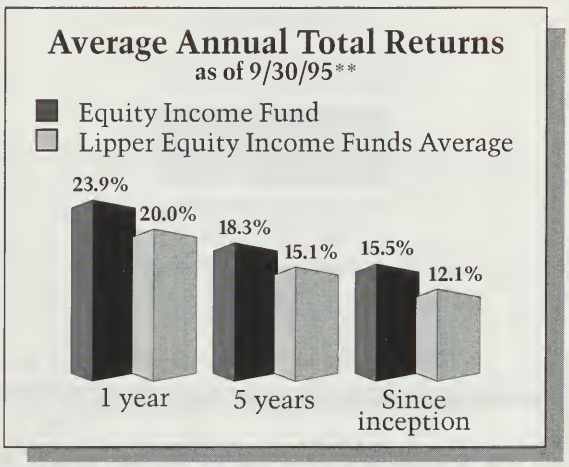
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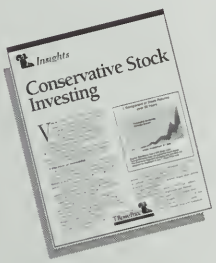
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Chief Executive Officer's Newsletter

February 1996

Med Chi Meetings

The 1996 Med Chi Annual Meeting will be Thursday, April 25, through Saturday, April 27, at the Turf Valley Hotel & Country Club in Ellicott City, Maryland. To make your room reservations, call Turf Valley at 410-465-1500 and indicate that you will be attending the Med Chi Annual Meeting. Room rates are $75.00 for a single and $85.00 for a double. Reservations must be made by Friday, March 8, 1996. For further information about the annual meeting, see the president's letter immediately following this newsletter.

This year's semiannual meeting will be held Friday, September 6 – Sunday, September 8, 1996 at the Sheraton Ocean City Resort and Conference Center in Ocean City, Maryland. Room rates are $135.00 per night for single/double occupancy (tax and incidentals not included). To reserve a room, call the Sheraton at 1-800-638-2100, and tell them that you are attending the Med Chi meeting. Reservations must be made by August 5, 1996, however, Med Chi's block of rooms may fill prior to this date.

Shigellosis cases double in 1995

Shigellosis cases in Maryland nearly doubled in 1995, with most of the increases found in Baltimore City, Prince George's County, and Montgomery County. In addition, many of the Shigella isolates have been found to be resistant to several antibiotics, including ampicillin and tetracycline. However, cases seem to respond to cephalosporins and ciprofloxacin.

Additional information regarding the increase of shigellosis has been delivered to Maryland's doctors through all hospital-based infection control practitioners, and a press release is accessible on the DHMH Epidemiology and Disease Control Program's internet home page (http://www.charm.net/-epi).

JCAHO accepts AMA physician masterfile information

The Joint Commission on Accreditation of Health Care Organizations (JCAHO) has determined that the AMA Physician Masterfile meets the JCAHO's newly written "Principles for Users of External Credentialing Agencies and Sources (such as the AMA Physician Masterfile)." The JCAHO decision means that hospitals and other health care organizations, which are now required to confirm independently from the primary source all credentials and training of physicians seeking clinical priviledges, will be able to fulfill that requirement through the use of the AMA Physician Masterfile Profile Service.

The JCAHO decision will save hospitals and other JCAHO-accredited health care organizations from duplicative efforts of querying each primary source on multiple occasions for the same physician information. The decision also is expected to result in significant savings in administrative expenses and application delays. The JCAHO action is in line with a resolution adopted by the AMA House of Delegates in December 1994.

AMA's Doctors Advisory Network available

The AMA has created the Doctors Advisory Network, a national network of physician-friendly attorneys and consultants with a proven managed care track record. The network provides physicians with instant access to experts and advisors they can trust. To date, more than 1,000 physicians from nearly every state have called the network and received prescreened referrals to managed care advisors. The service is free to AMA members and nonmembers pay a reasonable service charge. For further information, call 1-800-AMA-1066, and press 2.

AMA dues waiver for members called to military duty

The American Medical Association will waive 1996 membership dues for physicians who are called to active duty as part of the Bosnian conflict. Physicians requesting the waiver should do so in writing or by calling 1-800-AMA-3211. The AMA offered a similar dues waiver to physicians serving in Operation Desert Storm.

New subcommittee - Complementary Medicine

On December 21, Med Chi's Board of Trustees approved the establishment of a standing subcommittee on Complementary Medicine under the Public Health Committee. The subcommittee, co-chaired by Drs. Hiroshi Nakazawa and Margaret Mullins, replaces the former Study Group in Alternative Medicine. The subcommittee will continue to hold meetings on a regular basis in which physician speakers discuss complementary medicine methodologies they are using in their practices. Planning is also underway for subcommittee programs that will offer CME credits. To suggest possible meeting/CME topics and speakers, or to have your name placed on the subcommittee's mailing list, please call Dr. Hiroshi Nakazawa (410-644-1502) or Steve Jones at Med Chi (410-539-0872 x 343). Members and their colleagues are cordially invited to participate in the subcommittee's activities.

Med Chi seeks physicians for Sunday Rounds *program*

Sunday Rounds is a weekly radio program, hosted by John Stupak and sponsored by Med Chi, that airs on WBJC (91.5 FM) from 7:00 p.m. to 8:00 p.m., Sunday evenings. Med Chi physicians are invited to participate in the program, which is aimed at providing the public with information on current health topics. Dates are still available for the months of May to December, 1996. If you are interested in being a guest on *Sunday Rounds*, please call Heather Johnson at 410-539-0872 or 800-492-1056, ext. 306.

HCFA looks at administrative costs

The Health Care Financing Administration (HCFA) has been looking at the overhead cost of practicing medicine and is in the process of surveying 5,000 physician offices nationwide to determine overhead cost. Approximately 100 Maryland physicians will be surveyed. The surveys were mailed in January 1996 and any change in conversion factor will probably be initiated in 1997.

Medicare mammograms

Medicare pays for screening mammograms every two years for women aged 65 and older. A doctor's order is not required to obtain a screening mammogram.

Medicare covers diagnostic mammograms when the patient shows any sign of breast disease. Diagnostic mammograms require a doctor's order.

Immunizations covered by Medicare

Medicare covers three immunizations, given prophylactically, to Medicare patients. These immunizations are: pneumococcal vaccine; hepatitis B vaccine; and influenza vaccine.

The pneumococcal vaccine is to be administered to patients who are at high risk of contracting pneumococcal disease and who have not yet been vaccinated. High risk patients are:

1. 65 years of age or older;
2. immunocompetent adults with chronic illness or its complications (e.g., pulmonary disease, diabetes mellitus, alcoholism, cirrhosis, or cerebrospinal leaks);

3. patients with compromised immune systems (splenic dysfunction or anatomic asplenia, chronic renal failure, organ transplants, sickle cell disease, nephrotic syndrome, HIV infection, Hodgkin disease, lymphoma, or multiple myeloma).

The codes for billing for pneumococcal vaccine are: CPT code 90732 for the medication and HCPCS code G0009 for the administration. The diagnosis code, V03.82, should be used.

The influenza vaccination does not have to be ordered by a physician. The Medicare patient can request the vaccination. The correct codes for billing for the influenza vaccine are G0008 for the administration of the vaccine and 90724 for the medication. ICD-9 code V04.8 should also be used.

The hepatitis B vaccine is covered by Medicare for patients at high or immediate risk of contracting hepatitis B. The high risk group includes: patients with end stage renal disease (ESRD); hemophiliacs who receive Factor VII or IX concentrates; patients of institutions for the mentally retarded; persons who live in the same household with a carrier of the hepatitis B virus; homosexual men; and abusers of illicit injectable drugs. The immediate risk category includes staff in institutions for the mentally retarded and workers in health care professions who are frequently in contact with blood or blood-derived body fluids during routine work. Patients who are at high or immediate risk and who test positive for antibodies to hepatitis B are not considered at high or immediate risk and will not be covered by Medicare for the vaccination. The hepatitis B vaccination must be ordered by a physician and the following codes should be used: CPT 90731 for the medication; HCPCS Level 2 code G0010 for administration; and ICD-9 VO5.3 as the diagnosis code.

Medicare pays 100% of the allowable charge on an assigned claim for any of the three immunizations. Copayments or deductibles are not to be collected. For unassigned claims by a nonparticipating physician, the limiting charge rules do not apply and the physician can collect the regular fee from the patient.

Vaccine course televised via satellite

On March 8, a live, interactive satellite videoconference will present state-of-the-art knowledge about vaccines for international travel. Discussion topics include yellow fever, cholera, typhoid, hepatitis A, rabies, and Japanese encephalitis. During the 3.5-hour course, participants will learn which vaccines are indicated and contraindicated for travel to specific locations. The course is targeted to physicians and others who provide health care services to international travelers. Participants will be able to ask questions during the course via an 800 telephone number. The instructor is medical epidemiologist William L. Atkinson, M.D., M.P.H., of the Centers for Disease Control and Prevention. CME credit is expected to be available. For registration and other information, contact Sandra Kash, 410-225-6679, at the Maryland Department of Health and Mental Hygiene, Epidemiology and Disease Control Program, Center for Immunization.



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Officer

Medical
and Chirurgical Faculty
of Maryland

President's Letter

Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to members

Dear Colleague:

The 198th Annual Meeting of the Medical and Chirurgical Faculty is rapidly approaching. This year's meeting, *"Contemporary Medicine: Innovative Approaches and Practice Issues,"* will be held Thursday, April 25, through Saturday, April 27, 1996, at the Turf Valley Inn and Country Club in Ellicott City, Maryland. If you have attended one of Med Chi's meetings at Turf Valley in the past, I am sure you will remember what a pleasant location it is, and that the meetings held there were always enjoyable.

With respect to the continuing medical education program for this meeting, I am pleased to tell you that, once again, the Committee on Scientific Activities has done an outstanding job of compiling a program that offers a broad range of topics and a large number of credits for both general practitioners and specialists. The CME topics for this meeting have been arranged in "clusters," consecutive, independent presentations on different areas of a particular topic such as heart disease, pediatrics, or organ transplants. This approach, developed after critical review of the evaluations of our previous CME programs, allows you the choice of attending either the entire cluster or one or more of its segments.

In addition to the CME sessions, two House of Delegates meetings and reference committee meetings will be held. By participating in Med Chi's business meetings, you become involved in its governance and policy decisions, and help ensure that Med Chi responds to its members' needs. Percy Wooten, M.D., a member of the AMA Board of Trustees, will address the opening session of the House of Delegates on Thursday afternoon. Elections for president-elect, speaker and vice-speaker of the House, and members of the Board of Trustees from Baltimore County, Montgomery County, and the Eastern Regional Group will be held during the House of Delegates meeting on Saturday, April 27, 1996.

The annual meeting will also provide you with the opportunity to visit a variety of exhibits on Thursday and Friday. It is through the support of our exhibitors that Med Chi is able to continue offering our meetings; therefore, please show your appreciation to exhibitors by visiting their booths and discussing your mutual interests.

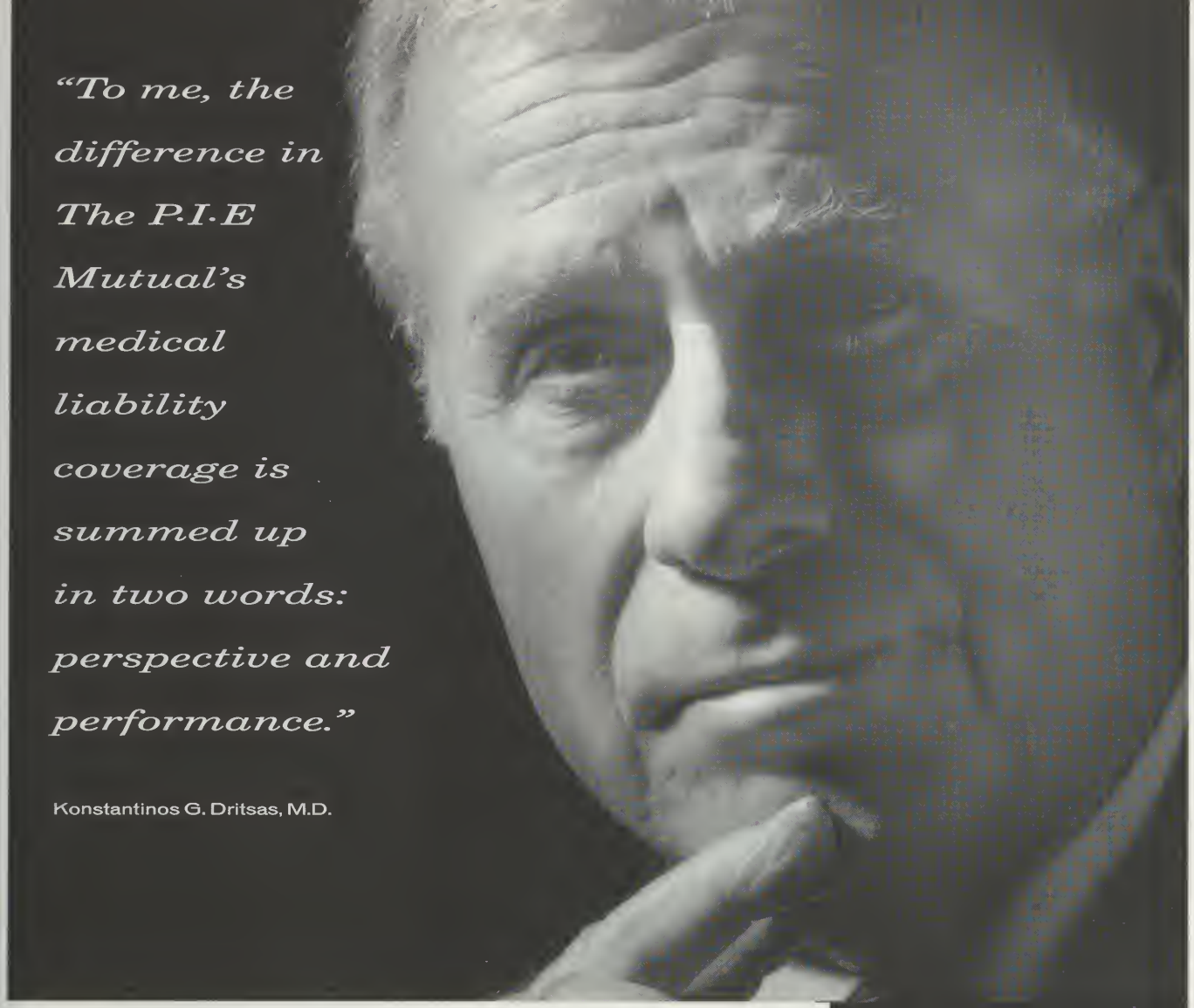
Finally, the meeting will offer several social events, including a welcome reception on Thursday evening where you can meet the candidates running for Med Chi offices. The presidential banquet, honoring incoming president Alex Azar, M.D., will be held on Saturday evening.

As you can see, this year's annual meeting has much to offer you and your colleagues. The meeting's preliminary program and registration form will be mailed to you in the next few weeks. I am confident that after seeing the program, you will want to be a part of this year's meeting.

I look forward to seeing you there.

Sincerely,

J. RICHARD LILLY, M.D.
President



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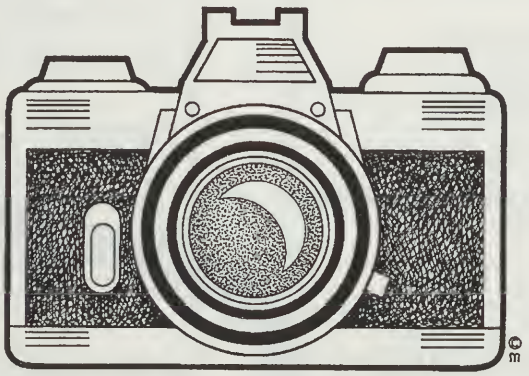
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AIR FORCE

Enter the Sixteenth Annual Med Chi PHOTO CONTEST!

Contest is open to all Med Chi and Alliance members.

Two categories: black & white OR color with first and second prizes awarded in each category.



Deadline for entries is Friday, March 15, 1996.

All entries will be displayed at the 1996 annual meeting at the Turf Valley Inn and Convention Center, Ellicott City.

Photo Contest Rules:

Eligibility: All members of Med Chi and members of the Alliance may enter. Professional photographers may not enter.

1. Photographs may be submitted in two categories: black and white OR color.
2. Limit: three entries per person.
3. Prints only; prints smaller than 8" x 10" or larger than 11" x 14" will not be accepted. If your favorite shot is a slide, you must have a print made within this size range to enter the contest.
4. Entries must be matted or dry mounted. No framed photographs will be accepted.
5. Entries must have name, address, and telephone number attached to the back of each photograph.
6. Entries may be mailed or brought to Med Chi, 1211 Cathedral Street, Baltimore, MD 21201 by 5:00 pm on March 15.
7. Photographs entered in the contest will be on display at the 1996 annual meeting.
8. Prizes will be awarded to the first and second place winners in each category.
9. Winners will be announced at the annual meeting of the Medical and Chirurgical Faculty, April 25-27, 1996.
10. Photographs will not be mailed back. They may be claimed at the registration desk at the close of the annual meeting at noon on April 27 or at Med Chi thereafter.
11. Med Chi does not guarantee against loss or damage of any kind to the photographs submitted to the contest.

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If you have questions, or need further information, kindly contact:

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DOCTOR OF THE DAY 1996

Note: All Monday dates are evening sessions, beginning at 5:00 pm and ending at 9:00 pm. For more information, call Joyce Yensen at Med Chi's Legal Department, 410-539-0872 or 1-800-492-1056, toll free in Maryland.

When the Maryland General Assembly convenes in Annapolis for its 1996 session, the Medical and Chirurgical Faculty will be there. Since 1964, Med Chi has staffed the first aid facility operated during the 90-day legislative session. Come join us at the state capitol building and see law being made firsthand. One doctor a day is all that is needed to care for the public, the legislators, and their staffs. Take this opportunity to donate something priceless -- your time.

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Members in the News



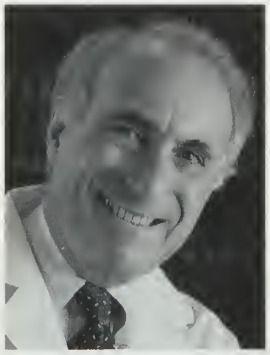
PHILLIP J. GOLDSTEIN, M.D., was named the first Distinguished Maryland March of Dimes Health Professional by the March of Dimes and recently honored at the organization's Dinner By Candlelight. Dr. Goldstein received his medical degree from the St. Louis University School of Medicine and completed his internship at the Jewish Hospital in St. Louis. Upon completion of his residency at the Maternity, Barnes, and Jewish hospitals in St. Louis, Dr. Goldstein was a fellow in reproductive physiology in the department of obstetrics and gynecology at the University of California at Los Angeles. During his tenure on the March of Dimes Health Professional Advisory Committee, he was a founding member and past president of the Maryland Perinatal Association; in 1988, he became president of the March of Dimes Board of Directors, Greater Baltimore Chapter. A fellow of the American College of Obstetricians and Gynecologists and a diplomate of the American Board of Obstetrics and Gynecology, Dr. Goldstein is chairperson of obstetrics and gynecology and Women's Services at the Washington Hospital Center, clinical professor of obstetrics and gynecology at Georgetown University, and an associate professor of obstetrics and gynecology at The Johns Hopkins University School of Medicine. He is a member of many professional and scientific organizations and committees, treasurer of the board of directors of the Baltimore RH Typing Laboratory, and the author of more than 150 scientific publications.



H. CHARLES KIM, M.D., is among the authors of the scientific exhibit entitled, "Endo-Luminal Translaparoscopic Approach to Diagnosis and Treatment of Gastric and Duodenal Tumors," which won first place at the annual conference of The International Society for Minimally Invasive Therapy. Dr. Kim received his medical degree from the College of Medicine, Yonsei University, in Seoul, Korea, and completed a rotating internship at Presbyterian Hospital in Junjoo, Korea. He completed a residency in orthopedic surgery at Yonsei University in Seoul, a general surgery residency at Saint Joseph Hospital in Baltimore, and a colon and rectal surgery residency at Temple University in Philadelphia, Pennsylvania. Board certified in general surgery and colon and rectal surgery, Dr. Kim is a teaching instructor in the colon and rectal surgery training program, and the laparoscopic training program, general surgery, at the Greater Baltimore Medical Center. In addition, he is chief of the colon and rectal division and a faculty member of the Minimally Invasive Surgical Training Institute at Saint Joseph Hospital and on the medical staff of Franklin Square Hospital.



J. LEONARD LICHTENFELD, M.D., a Med Chi Board of Trustees member and an internist in Lutherville, Maryland, was recently re-elected secretary-treasurer of the American Society of Internal Medicine at its 39th annual meeting. Dr. Lichtenfeld received his medical degree from Hahnemann Medical College in Philadelphia, Pennsylvania. He is board certified in internal medicine and is an instructor at The Johns Hopkins University School of Medicine. He recently served on a physician panel that developed mammography guidelines for the Agency for Health Care Policy and Research, was a member of the health advisory committee to Congressman Benjamin L. Cardin (D-Md), and served as a physician reviewer for the President's Task Force on Health Care Reform. Dr. Lichtenfeld serves on a panel set up by the Health Care Financing Administration and the AMA to review work that goes into providing physician services in conjunction with developing and refining the relative values of the RBRVS used to determine Medicare's physician fee schedule. Past president of the Maryland Society of Internal Medicine, Dr. Lichtenfeld was the 1987 "Internist of the Year." He is the physician host of the Medical Economics Video Magazine and host of a Baltimore radio program on health issues.



EDWARD E. WALLACH, M.D., a professor and former chairperson of gynecology and obstetrics at The Johns Hopkins University School of Medicine, was recently elected to the Institute of Medicine of the National Academy of Science. Members are chosen for their major contributions to health and medicine or to related fields. Dr. Wallach received his medical degree from Cornell University Medical College and completed an internship at Bellevue Hospital, Second (Cornell), medical division. He completed a residency in the department of obstetrics and gynecology at Kings County Hospital in Brooklyn, New York, and was a fellow in reproductive physiology at the Worcester Foundation for Experimental Biology in Shrewsbury, Massachusetts. Dr. Wallach is a diplomate of the National Board of Medical Examiners, the American Board of Obstetrics and Gynecology, and the Division of Reproductive Endocrinology, American Board of Obstetrics and Gynecology. He is director of the Subspecialty Division of Reproductive Endocrinology of the American Board of Obstetrics and Gynecology and a past president of the American Fertility Society. A member of many professional and community organizations and several editorial boards, Dr. Wallach is the author of more than 280 scientific publications.

AMONG BRITISH physicians, the third week in October 1995 may long be remembered as the "pill scare." On October 19, Britain's Committee on Safety of Medicines issued a recommendation that oral contraceptives containing desogestrel and gestodene no longer be prescribed routinely. The committee based the recommendation on a review of data from three unpublished epidemiologic studies, two of which were incomplete, suggesting that the newer progestogens are associated with an increased risk for venous thrombosis. British physicians were especially angered by the fact that the committee's recommendation was widely publicized in the lay media 24 hours before the physicians themselves were officially notified about it. As a result, physicians had to deal, unprepared, with a deluge of calls from worried patients. As the *British Medical Journal* (1995;311:1109) noted, "What for the press is a three day wonder—full of the excitement of the chase—leaves a trail of wreckage in its wake, still needing to be mopped up long after the circus has passed by."

Med Chi Bicentennial Celebrations

Med Chi has already begun planning celebration activities for its bicentennial in 1999. If you have any ideas or suggestions, please call Margaret Burri at 410-539-0872 or 1-800-492-1056.

LETTERS TO THE EDITOR

Doctor-patient confidentiality on the line

We all need to be very aware of the fact that the Health Care Access and Cost Commission (HCACC), established by HB 1359, is in the process of designing and phasing in an online Medical Care Data Base (MCDB), with the authority to collect all items on the HCFA 1500 form (34 items) on each and every doctor-patient encounter in the state, with specific, unique, but encrypted patient identifiers. HCACC can do this *without informed consent* of the patient or provider, whether the patient self pays (does not use insurance) or not, by mandatory authority provided by the statute. This could truly be the end of doctor-patient confidentiality, recognized as our core ethic since the days of Hippocrates, and Maryland would be the first state to sacrifice it to the government. And medical knowledge is power.

My grave concern is that these extensive data may be stored indefinitely, over each citizen's lifetime, in a vast data bank potentially accessible to nefarious misuse and enormously expensive to try to secure and maintain. Even if impermeable confidentiality could somehow be assured (unlikely), the important questions remain whether patients with sensitive problems will be deterred from seeking treatment by the very existence of such a data base and whether the privacy invasion that still occurs should be permissible without each patient's informed consent. Our civil liberties are at stake here.

One study has shown that 25% of people would avoid treatment consultations if confidentiality could not be absolutely guaranteed. As an example of the consequences of impeding treatment access, 18% of untreated depressed patients commit suicide. HCACC's goals are improved "cost containment" and "better access to health care." The cost of securing such data would undermine the former, and lost confidence in privacy would destroy the latter. I also question the quality, validity, and utility of all these data in promoting HCACC's goals: wise researchers abide by the motto *junk in, junk out*. Without consensual, voluntary sampling techniques, HCACC is likely to collect massive amounts of junk.

Our best recourse in preventing such a horrifying loss of privacy is to write our legislators, asking for either a more comprehensive confidentiality bill that will limit HCACC's activities or legislation that will directly revoke HCACC's unlimited, nonconsensual, noninformed-patient authority. Please act now, before HCACC has made further progress toward fulfilling its objectives in data collection.

Jennifer A. Katze, M.D.
Baltimore, Maryland

Letters To The Editor

The editorial board of the *Maryland Medical Journal* welcomes comments, criticisms, recommendations, and observations from all its readers. Please submit letters to

Editor
Maryland Medical Journal
1211 Cathedral Street
Baltimore, MD 21201-5585

Time to redefine managed care?

Thank you for publishing the thoughtful and well-written article on "managing" to redefine psychiatry (*Md Med J* 1995;44: 1019–1023). Dr. Irvin Cohen has expressed the thoughts and feelings of the vast majority of his colleagues. It is difficult for those of us in active practice to speak out against the ravages (no longer merely excesses, in my opinion) of managed care on our patients and on our professional integrity without being accused of being self-serving.

Dr. Cohen's temperate, accurate article could not possibly be interpreted by any rational person as other than written on behalf of patients. His plea for the integrity of the profession of medicine, including the specialty of psychiatry, also is extremely important. As he notes so clearly, as the core educational processes of the practice of medicine increasingly become driven by entrepreneurial, economic concerns rather than by concerns about patient care, the entire society will indeed be in deep trouble.

Specifically for psychiatry, as he so cogently pointed out, this bottom-line, economically oriented approach in a few years will be having a very negative impact by its effect on our training programs. Our residents may well learn that psychotherapy has little value in the field of psychiatry (as judged by the "marketplace" of emphasis and reimbursement).

It seems to me we have been captured, and are being held in captivity, by the forces of rapacious entrepreneurship. This entrepreneurship speaks in the language of clinical and public health medicine ("medical necessity," "measurable goals," "outcomes," "the most good for the most people," etc.). In truth, by behavior, not language, it cares primarily for its own profit-driven needs. Its focus has been on economics, not patient care, although its words often include "caring" statements. The entrepreneurship encourages its own growth and empire building (with desire to provide increasingly high salaries to people who "manage" the care of others while lowering the reimbursement rates to clinicians on the "front line" of helping people) and increasing profits and stockholder dividends to commercial enterprises.

The effort to eliminate excessive or abusive clinical services has become, as Dr. Cohen so well noted, extremely abusive in itself. Managed care (or as it seems to be so often, mismanaged care) has ridden roughshod over the body of clinical medicine. And we have become virtually its captives. It is time to reform that system.

A. Carl Segal, M.D.
Columbia, Maryland

Budget cut for budget deficit versus beta-blocker for chronic heart failure

Budget deficit (BD) and chronic heart failure (CHF) are daunting problems; the former will cause collapse of the economy, the latter will result in the demise of patients.

There is a remarkable analogy between BD and CHF. Both are the result of demand exceeding supply.

When a country develops BD, it prints more money and/or borrows from other wealthy countries. The short-term effect is a false sense of prosperity and the citizens are happy. In the long run, however, inflation ensues, interest on borrowed money snowballs, and eventually the economy will collapse. The remedy for BD is to apply brakes to reckless spending by cutting the budget. This must be done carefully, as too little cutting is ineffective and too much too quickly will cause depression.

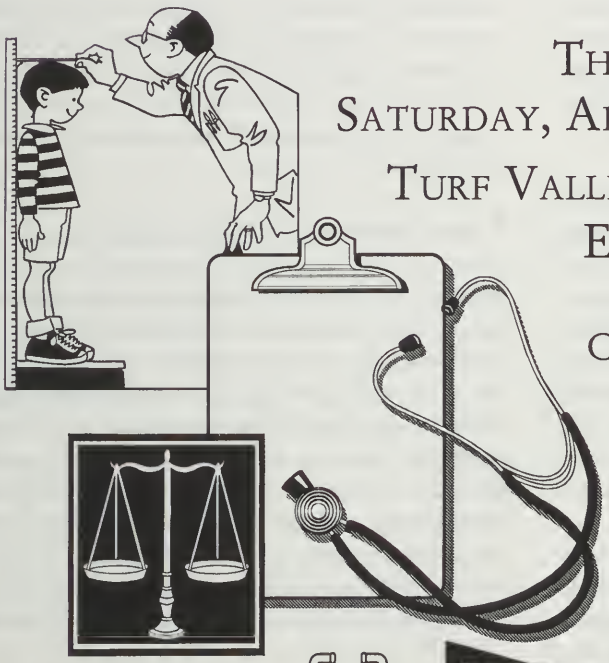
When a patient develops heart failure, the body will activate the sympathetic nervous system and will produce more norepinephrine. The short-term effect is a sense of well-being owing to the increase in cardiac output. If further cardiac stimulation is necessary, pressor agents such as dobutamine, can be given. The short-term effect is again beneficial, but the long-term result is disappointing because of reported increased mortality.

In recent years, there has been worldwide interest in employing beta-blockers for the treatment of resistant CHF. Beta-blockers are families of drugs that compete with stimulants for available adrenoreceptor sites and consequently block the norepinephrine activity. Thus, a beta-blocker may shield the myocardium from sustained norepinephrine over-stimulation and reduces cardiac work by reducing heart rate and rate pressure product. Because of their negative inotropic effect, beta-blockers must be given in a small dose initially and carefully titrated upward. Too large a dose my cause serious complications.

Although there is as yet no concrete evidence that beta-blockers prolong life, there is mounting evidence of symptomatic and hemodynamic improvement with beta-blocker therapy in resistant CHF. Furthermore, it is reported to reduce the number of hospitalizations and thus is cost effective and appears to have an important role in the treatment of some selected cases of CHF in conjunction with standard treatment. As the elderly population is rapidly increasing, more and more Americans will suffer CHF. Faced with the enormous national budget deficit and the uncertainty of Medicare, we must seek the most cost effective way to treat our patients. *You cannot spend more than you have* is a cardinal rule of nature. Maybe politicians and physicians can learn from each other.

Yu-Chen Lee, M.D.
Baltimore, Maryland

1996 ANNUAL MEETING of the MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND

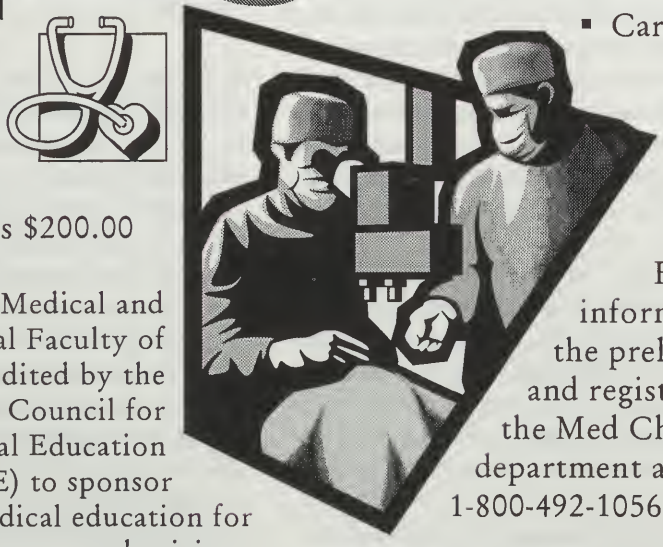


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Issam Bou-Holaigah, M.D., Peter C. Rowe, M.D., Jean Kan, M.D., and Hugh Calkins, M.D., are the authors of a study comparing the clinical symptoms and response evoked by upright tilt-table testing in healthy individuals and in patients satisfying strict criteria for chronic fatigue syndrome. Results indicate that chronic fatigue syndrome is associated with neurally mediated hypotension and that its symptoms may be improved in a subset of patients by therapy directed at this abnormal cardiovascular reflex (*JAMA* 1995;274:961–967). Drs. Bou-Holaigah, Rowe, and Kan are from the department of pediatrics and Dr. Calkins is from the department of medicine at The Johns Hopkins University School of Medicine.

Oliver D. Schein, M.D., and Neil M. Bressler, M.D., are among the authors of a study of relationships between smoking and the 5-year incidence of new nuclear opacities and between smoking and the progression of nuclear opacities in a cohort of Chesapeake Bay watermen. Results indicate that smoking is associated with a nuclear opacity, particularly with progression to severe opacities (*Arch Ophthalmol* 1995;113:1377–1380). Drs. Schein and Bressler are associate professors of ophthalmology at The Johns Hopkins University School of Medicine.

Steven M. Kelly, M.D., an instructor of otolaryngology-head and neck surgery at The Johns Hopkins University School of Medicine, is the coauthor of a study indicating that unilateral supraglottoplasty can be used to treat severe laryngomalacia in most patients and that only a small percentage of patients will subsequently require a contralateral procedure. Unilateral supraglottoplasty also may be associated with fewer complications (*Arch Otolaryngol Head Neck Surg* 1995;121:1351–1354).

F. Michael Gloth, III, M.D., of the division of geriatrics at Union Memorial Hospital in Baltimore, is the lead author of a study indicating that, despite a relatively high degree of vitamin supplementation in the United States, homebound elderly persons are likely to suffer from vitamin D deficiency (*JAMA* 1995;274:1683–1686).

Kevin Ferentz, M.D., is the author of a review article on managing medical comorbidity in elderly depressed patients in primary care settings (*Geriatrics* 1995;50[suppl 1]:S25–S31). Dr. Ferentz is an associate professor of family medicine and residency director at the University of Maryland Medical Center.

Judith Pratt Rossiter, M.D., Edmond A. Murphy, M.D., ScD, and Reed E. Pyeritz, M.D., Ph.D., are among the authors of a prospective study indicating that patients with Marfan syndrome in whom cardiovascular involvement is minor and aortic root diameter is less than 40 mm usually tolerate pregnancy well, with favorable maternal and fetal outcomes, and without subsequent evidence of aggravated aortic root dilatation over time (*Am J Obstet Gynecol* 1995;173:1599–1606). Dr. Rossiter is an assistant professor of gynecology and obstetrics, Dr. Murphy is professor emeritus of medicine, and Dr. Pyeritz is a member of the Clinical Research Centers Advisory Committee at The Johns Hopkins University School of Medicine.

Kurt Kroenke, M.D., from the department of medicine at the Uniformed Services University of the Health Sciences in Bethesda, is among the authors of a study indicating that mental disorders commonly seen in primary care are associated with more impairment in health-related quality of life (HRQL) than common medical disorders and also have distinct patterns of impairment. The data indicate that primary care directed at improving HRQL should focus on the recognition and treatment of common mental disorders and that outcome studies of mental disorders in both primary care and psychiatric settings should include multidimensional measures of HRQL (*JAMA* 1995;274:1511–1517).

Joseph M. Vinetz, M.D., Richard D. Moore, M.D., Patricia Charache, M.D., and John G. Bartlett, M.D., are among the authors of a study of clinical and laboratory variables that suggest the presence of *Clostridium difficile* colitis. Results indicate that readily available clinical and laboratory information is useful in making the diagnosis and that the negative predictive value of the first stool specimen is as high as 97%; all patients who had two or more clinical or laboratory predictors were diagnosed with *C. difficile* disease when either the first or second stool specimen was positive for toxin (*Ann Intern Med* 1995;123:835–840). Dr. Vinetz is a postdoctoral fellow in the infectious diseases division, Dr. Moore is an associate professor of medicine, Dr. Charache is a professor of pathology and medicine, and Dr. Bartlett is the Stanhope Bayne-Jones professor of medicine at The Johns Hopkins University School of Medicine.

Carol E. Peyser, M.D., Joseph R. Cockrell, M.D., Paul R. McHugh, M.D., and Susan E. Folstein, M.D., are among the authors of a study indicating that the antioxidant α–tocopherol may slow the rate of motor decline early in the course of Huntington's disease (*Am J Psychiatry* 1995;152:1771–1774). Drs. Peyser and Cockrell are assistant professors of psychiatry and behavioral sciences. Dr. McHugh is the Henry Phipps professor of psychiatry and the director of the department of psychiatry and behavioral sciences and Dr. Folstein is a professor of psychiatry and pediatrics at The Johns Hopkins University School of Medicine.

Elliot K. Fishman, M.D., and Pamela A. Lipsett, M.D., are among the authors of a retrospective review of a case series of patients with iliopsoas abscess. The authors conclude that pain in the flank, hip, or abdomen may indicate a primary iliopsoas abscess; that computed tomography is the standard method of diagnosis; that antibiotic regimens for primary iliopsoas abscess should include coverage for *Staphylococcus aureus* and regimens for secondary abscesses should be tailored for enteric bacteria; and that surgical drainage is superior to percutaneous drainage in achieving prompt recovery (*Arch Surg* 1995;130:1309–1313). Dr. Fishman is a professor of radiology and oncology and the director of the division of abdominal imaging and Dr. Lipsett is an assistant professor of surgery at The Johns Hopkins University School of Medicine.

James H. Dorsey, M.D., of the department of gynecology and the Institute for Conservative and Minimally Invasive Surgery at the Greater Baltimore Medical Center, and **Earl P. Steinberg, M.D.,** of the Johns Hopkins program for medical technology and practice assessment, are among the authors of a review of available data on the indications, characteristics, surgical management, and outcomes of patients undergoing total abdominal, total vaginal, and laparoscopically assisted vaginal hysterectomy. The authors conclude that laparoscopically assisted vaginal hysterectomy allows many patients to avoid total abdominal hysterectomy, but that many patients undergoing total abdominal and laparoscopically assisted vaginal hysterectomy could probably undergo total vaginal hysterectomy instead. Clinical outcomes were similar for all procedures. Practice style and personal preference of the surgeon thus may play a significant role in selection of hysterectomy type (*Am J Obstet Gynecol* 1995;173:1452–1460).

Adel F. Abdullah, M.D., Paul H. Wolber, M.D., and Edward W. Ditto, III, M.D., from the department of neurosurgery at Washington County Hospital in Hagerstown, are the authors of a study of a modification of traditional carpal tunnel surgery in which a parabolic incision is used to leave a protective flap of the ligament to cover structures in the tunnel in the area of maximum wrist convexity. Results indicate the technique reduces pressure within the carpal tunnel and avoids the gaping of the tunnel space associated with traditional vertical incisions that may allow anterior displacement of the median nerve and flexor tendons between the cut ends of the transverse carpal ligament (*Neurosurgery* 1995;37:931–936).

Noel R. Rose, M.D., Ph.D., a professor of immunology and infectious diseases at The Johns Hopkins University School of Medicine, is among the authors of a histopathologic study confirming an association between chronic lymphocytic thyroiditis and papillary carcinoma in the populations studied (Japanese and white and African Americans). Results, reported in *Cancer* (1995;76:2312–2318), also suggest that autoimmune thyroiditis may be a predisposing factor for papillary thyroid carcinoma.

Robert S. A. Hayward, M.D., M.P.H., Eric B. Bass, M.D., M.P.H., and Gordon Guyatt, M.D., MSc, are among the authors of an article on how to use clinical practice guidelines, the eighth in a series of User's Guides to the Medical Literature (*JAMA* 1995;274:1630–1632). Drs. Hayward and Guyatt are with the departments of medicine and clinical epidemiology and biostatistics and Dr. Bass is an assistant professor of medicine at The Johns Hopkins University School of Medicine.

Anne B. Namnoum, M.D., Timothy N. Hickman, M.D., and Sandra B. Goodman, M.D., are among the authors of a study indicating that, compared with women who had oophorectomy for endometriosis, patients who underwent hysterectomy with ovarian conservation had 6.1 times greater risk of developing recurrent pain and 8.1 times greater risk of reoperation (*Fertil Steril* 1995;64:898–902). Dr. Namnoum, an assistant professor of obstetrics and gynecology, works with Drs. Hickman and Goodman in the division of reproductive endocrinology at The Johns Hopkins University Medical Center.

What Your Patients
MAY BE READING

- "How To Get More From Your Doctor—ASK!"
  Glamour, January 1996
- "How Not To Get A Single Cold This Winter"
  Fitness, January/February 1996
- "25 Facts About Orgasms"
  New Woman, January 1996
- "A Cancer Vaccine Arrives"
  Self, January 1996
- "Your Bones: An Owners Manual"
  Mirabella, January/February 1996
- "What You Need To Know About Your Knees"
  Cosmopolitan, January 1996
- "Why You're Always So Cold (And He's Not!)"
  Redbook, January 1996
- "Redo You. The Body Sculptors—Our Top Plastic Surgeons"
  Baltimore, January 1996
- "How Many Eye Jobs Before You Can't Blink?"
  Mirabella, January/February 1996
- "Stress . . . It's Worse Than You Think"
  Psychology Today, January/February 1996
- "Diagnostic Imaging: The Inside Story on Xrays, MRI and CT and PET Scans"
  Glamour, January 1996
- "Food in a Flash—Nutritious Eating When You Have Little Time"
  Muscle & Fitness, February 1996
- "Sleep Well, Be Happy, Live Forever. The Latest "Miracle Drug"—Melatonin"
  Mirabella, January/February 1996
- "A Shot in The Arm: A Cholesterol Vaccine"
  Men's Health, February 1996
- "Meals That Heal"
  Self, January 1996
- "A Toast To Moderation"
  Psychology Today, January/February 1996
- "How (And Why) Colds Become SUPERCOLDS"
  Self, January 1996
- "Saving Her Life. Real Life 'ER'"
  Glamour, January 1996
- "No More Glasses. Can Laser Surgery Improve Your Vision?"
  Washingtonian, January 1996
- "Dealing With Male Infertility"
  Cosmopolitan, January 1996
- "Should You Buy Cosmetics From Your Doctor?"
  Self, January 1996
- "Eat Your Way Out of the Dumps"
  Fitness, January/February 1996
- "Pain After STD Treatment—Why You Have It, What To Do And How To Avoid It If There Is A Next Time"
  Glamour, January 1996
- "Did They Have to Die? Save Yourself From Breast Cancer—Your Doctor May Not"
  Fitness, January/February 1996
- "Caloric Restrictions and Aging"
  Scientific American, January 1996
- "The Pressure To Be Perfect. Eating Disorders: How Women Bond"
  Glamour, January 1996
- "The ABCs of STDs"
  Today's Black Woman, February 1996
- "4 Things You Must Know Before Your Next Health Checkup"
  Redbook, January 1996

Clear and present danger: a medical-legal dilemma

E. George Elias, M.D., Ph.D., and Anton J. S. Keating, J.D.

Dr. Elias is chief of surgical oncology at Franklin Square Hospital Center in Baltimore. Mr. Keating, a former chief counsel for the Medicaid Fraud Unit of the attorney general's office, is an attorney in private practice who represented Dr. Elias before the Maryland Court of Appeals.

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Malpractice claims are filed against physicians every day. In some cases the claims are false, yet the accusers are awarded for a variety of reasons. We would like to describe the case in which Dr. E. George Elias was accused, prosecuted without investigation, and convicted twice in the courts of the City of Baltimore for battering a patient during a routine office visit examination. Not until the Court of Appeals of Maryland evaluated the appropriateness of the physical examination was it determined that Dr. Elias' examination was absolutely proper and necessary. The Court of Appeals of Maryland exonerated Dr. Elias and reversed his conviction.

At the time of the prosecution, it was uncontradicted that Dr. Elias was a member in good standing of the medical staff of the University of Maryland Medical System (UMMS). He was a tenured professor of surgery and oncology and chief of surgical oncology at UMMS. In addition to working under three separate research grants from the National Institutes of Health, he was director of the surgical oncology program at the University of Maryland School of Medicine; president of the American College of Surgeons, Maryland Chapter; a member or committee chairperson of more than 50 medical associations and committees; the author of more than 165 published books, book chapters, and scientific articles; and a visiting professor at 65 universities who had taught 3,500 medical students in the field of cancer. No complaints had been filed against him by any of the 50,000 patients he had treated during his 27 years of practice.

A recognized expert in surgical oncology, Dr. Elias has testified as an expert witness regarding the detection and treatment of cancer (indeed, the Circuit Court qualified him as an expert during the proceedings). He was also personally involved in the management of the 127th case of a melanoma in blue nevus in a vitiligo in the buttock of an African American man with lupus who presented with metastatic melanoma to his groin lymph nodes.[1]

The incident

A social worker at UMMS, who often visited one of the secretaries in the surgical oncology program office, referred herself to Dr. Elias for evaluation of breast pain. He saw her on January 5, 1993, in the professional building of the University of Maryland. She did not ask for a chaperon during her physical examination. The patient was a 32-year-old black woman who presented with a history of lupus erythematosus and vitiligo in the upper anterior aspect of her right thigh. Dr. Elias examined her breasts for masses and her axillae and supraclavicular areas to rule out any enlarged lymph nodes. Dr. Elias diagnosed the breast condition to be sclerosing adenosis. He assured the patient that she had no breast cancer, that she had a benign condition, and that there was no need for a mammogram because of her young age and negative family history for breast cancer.

As Dr. Elias was leaving the examination room to dictate a letter to the patient's gynecologist, the patient lifted her gown and asked him to look at the vitiligo on her right thigh. Because Dr. Elias could not see through her pantyhose, he asked her to pull them down and to get back on the examination table. He then stated he would return in a few minutes to examine her, after he dictated a note to her gynecologist. When Dr. Elias returned, he inspected then palpated the vitiligo area for any skin nodules. He also palpated the groin area to rule out the presence of enlarged lymph nodes. Results of the examination were negative, and Dr. Elias reassured the patient that she had primary vitiligo (i.e., cause unknown). He further explained that vitiligo might occur in patients with melanoma whether they are black or white.

In March 1993, two months after the examination, the patient filed criminal charges accusing Dr. Elias of improperly touching her during the physical examination. He was charged with committing a fourth degree sex offense and battery. The patient also filed complaints with the Board of Physician Quality Assurance and the dean of the University of Maryland School of Medicine.

Baltimore City police officers went to the patient's office at UMMS to investigate, but she refused to talk to them. Instead, she telephoned an assistant state's attorney who ordered the officers not to investigate.

First trial

On April 6, 1993, Dr. Elias was tried in the District Court for Baltimore City before Judge Askew W. Gatewood. Notwithstanding the uncontradicted fact that the patient had pulled down her own pantyhose and returned to the examination table on her own, the prosecutor and the accuser claimed that Dr. Elias examined the patient's groin without her express permission or consent. The patient also claimed that Dr. Elias touched her vagina without gloves.

Before he announced the verdict, the judge stated: "Dr. Elias spent most of his life helping others and is world renowned. Dr. Elias has practiced medicine for many years without any complaints against him." The judge added, "There was probably a misunderstanding between doctor and patient." He said it was appropriate for Dr. Elias to examine the groin when he saw white spots, but that maybe Dr. Elias forgot to tell the patient that he had to touch this area. The judge expressed his belief that Dr. Elias was "such a great surgeon that his examination was more or less automatic." The judge continued, "You (Dr. Elias) saw a spot right next to an area where you should examine, you touched that area, it shocked (the patient involved) and as a consequence we find ourselves here at this time."

Although the judge found Dr. Elias not guilty of sexual assault, he did find him guilty of common law battery. The judge said Dr. Elias was "guilty in the least most way of an offensive touching of [the alleged victim]...an oversight on your [Dr. Elias'] part as opposed to anything that is actually intentional...not the fault of any particular person." The judge said Dr. Elias was "guilty in a most technical sort of sense, and this finding would provide [the accuser] with some relief."

Dr. Elias refused to accept probation before judgment and the judge imposed a $100 fine, 6 months suspended imprisonment, and one year probation. When Dr. Elias appealed the conviction, the judge set a $1,000 appellate bail.

Second trial

On November 8, 1993, Dr. Elias was tried de novo in the Circuit Court for Baltimore City before Judge Clifton J. Gordy. In this trial, the defense attorney for Dr. Elias failed to bring to the attention of the Circuit Court any of the lower court's findings of fact. Although the lower court had found Dr. Elias not guilty of the sex charges, the defense attorney made no argument to dismiss the charges on the grounds of double jeopardy and inconsistent verdict. The defense attorney also failed to argue that Dr. Elias should not be tried again on the same charges if this was simply a "misunderstanding."

The patient and Dr. Elias were the only individuals who testified in the Circuit Court. Although three other physicians (Drs. Harold Ramsey, Richard Hirata, and B. Martin

Middleton) were present in the court, they were not called upon to offer expert opinions in support of Dr. Elias' opinion that the groin palpation in the accuser's examination was both routine and necessary to rule out enlarged lymph nodes. The physicians also would have testified that failure to palpate the groin area in these circumstances could be malpractice because with combined lupus and vitiligo, the possibility of melanoma near the depigmented areas should be ruled out.

After a trial that lasted 1½ hours, the judge declared Dr. Elias guilty of battery and imposed a $5,000 fine, but gave no explanations or reasons.

In the meantime, the Board of Physician Quality Assurance had investigated the allegations and circumstances surrounding Dr. Elias' examination and found no evidence of a crime or any other wrongdoing.

At this time, Dr. Elias dismissed his first attorney and retained Mr. Anton Keating. Three weeks after the verdict was rendered, the patient filed a malpractice action civil suit against Dr. Elias for $6 million.

Motion for a new trial

Counsel for Dr. Elias filed a motion for a new trial, which according to the law had to be heard by the same Circuit Court judge. On January 28 and 29, 1994, Judge Gordy heard the arguments on the motion. During the hearings, the prosecuting attorney for Baltimore City stated that she would prosecute any physician who examines a patient without gloves and without the presence of a chaperon. However, the prosecution did not dispute any of Dr. Elias' testimony on the motion for a new trial.

At the hearing, George and Virginia Hurlock testified that on January 5, 1993, they were outside Dr. Elias' examining room during his examination of the patient and that they saw her leave the room. They had heard no noise or commotion and observed that she did not appear upset as she left.

Dr. Harold Ramsey, an expert surgical oncologist, testified that melanoma is one of the conditions that can cause dark-skinned people to develop white spots. Dr. Ramsey said a reasonably competent surgical oncologist who saw vitiligo on the patient's thigh would examine the lymph nodes in the groin area on each side of the vagina. He identified several articles that demonstrate the groin area where the lymph nodes are found and the extent of the area to be examined. In his opinion, a physician has the duty to examine patients as the physician sees fit, and permission for such an examination is understood to be implied. Dr. Ramsey explained that gloves are worn primarily for the protection of the physician. He stated, "If I was going to examine only the groin, I would not have used gloves. If I was going to examine the vagina, I would have used gloves."

The patient suffered from lupus and was using the drug Plaquenil. Dr. Ira Fine, an expert rheumatologist, testified that both Plaquenil and lupus can cause adverse effects on the central nervous system. He said, "Up to 50% of all lupus patients suffer from some cognitive impairment. The disease can affect perception and the way you see the event occurring around you." Dr. Fine identified several medical articles supporting his opinion. He explained that lupus, alone or treated with Plaquenil, can cause neuropsychiatric disorders, including anxiety, organic brain syndrome, hallucinations, depression, mental confusion, perceptive deficiencies, toxic psychosis, and a variety of other cognitive dysfunctions and impairments. Dr. Fine noted that some lupus patients demonstrate cognitive impairment without overt manifestations of neuropsychiatric disorders. The neurocognitive symptoms include dementia and defects in memory and verbal reasoning. The cognitive dysfunction can be subtle and detectable only through detailed neuropsychological assessment. Despite Dr. Fine's testimony, Judge Gordy would not consider information regarding the patient's previous emotional and psychological counseling.

Dr. Elias' four staff members, Sharon Honts, Sally Brown, Thelma Perry, and Barbara Buda, also testified at the motion for a new trial. They described Dr. Elias' routine in his medical practice, noting that no chaperon is provided unless the patient requests one. They further stated that the walls of the 15 examining rooms in the office are thin enough that people outside can hear calls from within. They said the patients' waiting room, which is used by the 10 physicians working in the suite, lies just beyond the examining rooms and that approximately 50 people were in the waiting room while Dr. Elias was examining the patient. Each staff person testified that she had been interviewed by Dr. Elias' first attorney before the Circuit Court trial and had received a subpoena to appear at trial. They had gone to the trial together expecting to testify, but were told their testimony would not be needed.

Sharon Honts also testified that immediately after the patient filed charges against Dr. Elias, the patient's attorney telephoned Dr. Elias about settling the suit.

Although staff members testified that the day Dr. Elias examined the patient was a routine day, Judge Gordy refused to consider evidence of Dr. Elias' routine or activities that day, deeming them irrelevant.

Furthermore, the court rendered its verdict without deliberating or reviewing two lengthy exhibits. One was an article on melanoma in blacks written by Dr. Elias. Although Judge Gordy did ask to see the book in which the article appeared, the videotape of the trial shows that he returned it six seconds later. He also did not read Dr. Elias' curriculum vitae, a 33-page document.

On February 18, 1994, Judge Gordy denied the motion for a new trial with no explanation whatsoever. The trial court did not announce any factual findings or analyses, either in pronouncing its verdict, or in denying the motion for dismissal of the verdict or a new trial.

After sentencing, Judge Gordy advised Dr. Elias that he had the right to file an appeal to the Court of Special Appeals. This advice, however, was incorrect. Had Dr. Elias filed an appeal to the Court of Special Appeals, he would have waived his right to proceed to the Court of Appeals. Furthermore, the appeal would have been rejected in the Court of Special Appeals because the intermediary appellate court is not the appropriate forum for an appeal in this case.

The appeal

The Medical and Chirurgical Faculty of Maryland submitted an *amicus curiae* (friend of the court) brief to the Court of Appeals in support of Dr. Elias' conduct. The brief asserted that it is not always necessary or appropriate to have a chaperon present during a physical examination. The Court, recognizing the importance of the issue to the general public and to the health care community, heard the case on November 9, 1994.

On July 18, 1995, the Court of Appeals reversed Dr. Elias' conviction without ordering a new trial. The Court found Dr. Elias not guilty and stated that the conviction entered by both lower court judges was "clearly erroneous." The judges of the Court of Appeals stated: "We are at a loss to understand how the District Court judge could have found Dr. Elias guilty of criminal battery after concluding that he believed Dr. Elias' testimony and consequently, that he did 'nothing wrong', that he never touched any area of the [accuser's] body that was internal, that it was appropriate, in the circumstances, for Dr. Elias to examine [the accuser's] groin area, and that the touching described by [the accuser] in her testimony was not intentional but rather was an oversight." In addition, the Court of Appeals indicated that the trial judge had improperly applied the governing Maryland law regarding the *mens rea* (intent) necessary to support a battery conviction, and held that there was no evidence in the record to support the finding of such criminal intent.

Maryland civil law

A review of cases in Maryland and other jurisdictions presents no instance in which a health care practitioner, who the trial court *admitted* acted from benign motives, without intent to offer injury or insult to the patient, was nevertheless convicted of criminal battery for not having obtained the specific consent of the patient for treatment or examination. Therefore, as described by the trial court, this case represents a criminal action predicated on a nonwillful, nonwanton, nonreckless failure on the part of a physician to obtain detailed, specific informed consent before physically examining a patient. Insofar as this case is essentially an informed consent matter, an analysis of Maryland civil law is pertinent.

The doctrine of informed consent was first addressed by the Court of Appeals in an action for dental mal-practice.[2] The plaintiff sued the defendant dentist, alleging that he had extracted two good teeth, instead of "baby roots" which should have been extracted and which the dentist had promised to extract. The defendant pled limitations on the grounds that an action predicated on lack of informed consent was a technical battery and subject to a one-year period of limitations under then-existing Maryland statute. The defendant's position was supported by case law from other jurisdictions[3] in which the court had held that an action predicated on lack of informed consent was a "technical assault and battery" even without an intent on the part of the physician to injure. No Maryland case, however, has ever permitted recovery for battery under such circumstances. In Maryland, the only cases in which physicians have been held liable for sexual battery of a patient are those in which the physician *intentionally* took sexual liberties with a patient.

Discussion

According to the decision of the Court of Appeals, the two lower court judges in this case demonstrated a lack of familiarity with the law and no understanding of oncology or melanoma (and admitted as much on the record). In addition to denying Dr. Elias the right to introduce evidence regarding the accuser's credibility, the lower courts tried to dictate how a physician should conduct a physical examination.

Although a state's attorney in this case threatened to prosecute any physician who does not wear gloves and has no chaperon while examining a patient, there is no law to support the claims that a chaperon must be present or that

gloves must be worn to examine intact skin. Chaperons are not needed for a routine physical examination, but are available at the patient's request (Dr. Elias' accuser, who worked at UMMS, knew she could ask for a chaperon, but did not). According to Occupational Safety and Health Administration (OSHA) regulations on bloodborne pathogens, gloves must be worn when the examiner will come in contact with body fluids, mucus membranes, or open skin. Furthermore, although a patient may present with one complaint, it is the physician's responsibility to perform a thorough examination and investigate any abnormalities. In this case, Dr. Elias palpated the accuser's groin area to determine if the lymph nodes were enlarged. Because the examination did not involve penetration of the vagina, gloves were unnecessary. Dr. Elias himself testified that if penetration of the vagina was to be effected, gloves would be needed.

The state called no expert witness to testify that Dr. Elias' examination of the accuser deviated from accepted standards of medical care. Before the state could argue that the examination was a battery, it should have shown that a manual examination of the groin area was outside the scope of a proper medical examination. Not only did the state fail to produce such evidence, in Dr. Elias' motion for new trial, the Circuit Court judge adduced undisputed expert testimony that Dr. Elias' examination *was* medically appropriate.

The Medical and Chirurgical Faculty of Maryland filed its motion for leave in this action as *amicus curiae* to address the grave concerns created in the physician community by the criminal battery convictions of Dr. Elias in this action. A precedent of imposing criminal liability for examinations undertaken in good faith, simply because the examination exceeded the technical scope of the express permission, could seriously deter any sort of physical examination and proper diagnosis. Such an extension of criminal liability would not responsibly serve public policy; to the contrary, it could potentially work a serious injury on an already overburdened health care system.

The judicial system in Baltimore City tried to dictate to health care providers how to perform their specialized functions in the practice of medicine. Had the prosecutors' position been allowed to prevail, it would encourage more false claims, prosecution without investigation, and monetary reward for the false claims. Physicians would face the dilemma of being charged with battery for doing a thorough physical examination or malpractice for not doing one.

After more than two years of unnecessary legal expense and emotional distress, the Court of Appeals of Maryland finally exonerated Dr. Elias. Although the decision is also a victory for every honest physician, be warned. The Baltimore City judges are protected from lawsuit for Dr. Elias' ordeal, and no disciplinary action has been taken against them or the state's attorney's office. Do not be complacent. It happened to Dr. Elias; it could happen to you.

References

1. Elias EG. *Handbook of Surgical Oncology*. Boca Raton, FL: CRC Press; 1989:81–101.
2. *McClees v. Cohen* 158 Md. 60 (1930).
3. *Mohr v. Williams* 95 Minn. 261, 104 N.W. 12 (1905).
4. *Avery v. State* 15 Md. App. 520,292, A.2d 728 (1972). ■

UNTIL MAY 1995, the chief therapy for U.S. patients with non-insulin-dependent diabetes mellitus (NIDDM) was one of the sulfonlyureas. Now, metformin (Glucophage), a drug in the biguanide class that has been used in Canada and Europe for almost 35 years, also is approved for use. Unlike the sulfonylureas, which initially stimulate insulin secretion then increase cellular insulin receptors and reduce insulin postreceptor defects, metformin works by lowering glucose in peripheral tissues. Whereas hypoglycemia is the most common side effect of sulfonylureas, metformin does not cause hypoglycemia. It also tends to prevent weight gain and improves lipid parameters. Metformin side effects include anorexia, nausea, and diarrhea, which are usually mild and transient. Metformin should not be prescribed for patients who abuse alcohol or who have significant liver or kidney disease. Used alone, sulfonylureas and biguanides are equally effective in reducing glucose levels. They also can be used in combination.

Source: Lubbas H, Miller JL, Rase LI: Oral hypaglycemic agents in type II diabetes mellitus. *Am Fam Physician* 1995;52:2075–2078.

Anatomy of a medical malpractice lawsuit

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There is probably nothing physicians fear more than a medical malpractice lawsuit. In our litigious society the likelihood that a physician will have personal experience as a defendant in a medical malpractice case is significant. Between 1984 and 1994, an average of 594 new medical malpractice cases were filed each year against physicians in Maryland's Health Claims Arbitration Office.[1] If one extrapolates from the number of physicians in Maryland who are involved in patient care (14,123 in 1994), then approximately 4% of Maryland physicians are sued for medical malpractice each year.[2] If each of these cases is directed against a different physician, then during a 10-year period approximately 40% of Maryland physicians may be defendants in a medical malpractice case.

The federal Health Care Quality Improvement Act of 1986 (Public Law No. 99-660) called for the creation of the National Practitioner Data Bank (NPDB).[3] One reason for the NPDB regulations that govern reporting of malpractice payments was the assumption that physicians who have made malpractice payments to patients are more likely to provide substandard care. Several studies have examined this issue and found no relationship between prior malpractice claims experience and the technical quality of physicians' practices (determined through chart review).[4]

Risk management literature suggests strategies a physician can use to reduce the likelihood of becoming a defendant in a medical malpractice case. These include using standard of care procedures and treatment regimens; clearly, accurately, and completely documenting care; and fostering communication that is responsive to the needs of patients and their families. Although these practices reflect sound professional behavior and may deter some litigious patients, they offer no guarantees. Medical malpractice lawsuits are an occupational hazard of practicing medicine that cannot be completely prevented, no matter how carefully a physician practices.[5]

Being named as a defendant in a medical malpractice case generates emotional turmoil that affects the personal and professional lives of physicians and their families. The physician's response to the crisis can influence the course of the case management and its outcome. Some physicians may stop practicing medicine entirely, some may try to avoid interacting with their attorney, and others may approach litigation with frank hostility. Although anger, guilt, denial, and depression are normal reactions, none is helpful in defending the lawsuit. Physicians who become paralyzed in any of these responses can compromise their effectiveness in influencing the outcome of the litigation and can undermine their attorney's ability to defend them. Physicians who bury their heads in the sand or vent their anger during a discovery deposition will not help their defense no matter how competent their attorney.

For an adequate defense in a medical malpractice case, the physician-defendant must take an active part. Although the level of activity and involvement may vary depending on the physician's own personality and choice, the attorney's method of handling malpractice cases, or the nature of the case itself, the physician must be actively involved. The attorney should offer specific suggestions to help the physician constructively channel the anger and turmoil into action that will positively influence the outcome of the case. Successfully defending a medical malpractice case is a team effort that requires the skill of both physician and attorney. The physician must learn how to help the attorney develop the most effective, convincing explanation of the events at issue using the factual data available.

The physician who enters the world of medical malpractice as a defendant begins an arduous process that may drag on for years. The physician is being portrayed as an incompetent who has caused irreparable harm to a victim, the patient-plaintiff. Confronted with this bizarre twist of events, physicians often feel degraded, powerless, and confused; they are now in a dependent role and must rely on others to advance their position. Such a situation is difficult for physicians as well as their attorneys. The attorney who assumes the physician-client understands all the legal maneuvering that occurs during litigation is making a mistake.

Of the participants in the defense (the attorney, the insurance representative, and the physician), the physician is the novice. Accustomed to being a decision maker in professional interactions, the physician may be at a loss in appreciating the specific rules and the subtleties of the litigation process. The defense attorney must serve as a guide, advisor, interpreter, and advocate, but it is the responsibility of both professionals to develop a cooperative and collaborative relationship. Just as the practice of medicine is a blending of science and art not easily distilled to a set formula, litigation combines the knowledge of specific rules and case law with the art of advocacy.

Following is an outline of the key elements of a medical malpractice lawsuit and a coherent physician strategy that will increase the chance of a positive outcome for the physician-defendant. The application of these suggestions to the specific circumstances of a given case must be implemented with the advice of one's own counsel. Six rules are suggested that distill important elements of the defense.

Notification of suit: the adversarial process begins

Some situations may predict an impending lawsuit. For example, an angry, unhappy patient; a letter from an attorney threatening suit; or an untoward treatment outcome may foretell future litigation. By notifying his or her liability carrier, the physician can take advantage of the carrier's suggestions regarding the physician's handling of the patient, subsequent requests from the patient's attorney, or perhaps the need for early settlement negotiations before a lawsuit is filed. A physician who attempts to deal alone with a patient and the patient's attorney is likely to provide information unwittingly that later will be used against him or her.

Once a physician is served with official notification of a lawsuit, a summons (an official document usually delivered personally to a person being sued that requires a formal response) and a complaint or a statement of claim (a written statement in a lawsuit that lists the essential facts constituting the offense), the process begins formally for the defendant. According to the Maryland Rules of Civil Procedure, a written response or answer to the allegations described in the complaint must be filed within a certain time (usually 30 days).[6] When the physician receives the legal documents, the liability carrier must be notified immediately. If there are any doubts about the nature of the documents received, the liability carrier can resolve any questions and trigger the necessary steps that follow.

Rule 1: notify insurance carrier immediately. Once a patient files a lawsuit, the physician should send as soon as possible a clear copy of the medical record on the patient to the liability carrier.[7] The complete original medical record remains with the physician.

Rule 2: do not alter records in any way. A physician will usually review the patient's record before sending it to the carrier. Although a physician may be tempted to make additions, clarifications, or corrections, *any* alteration in records, no matter what the motive or magnitude, will be viewed as an attempt by the physician to cover up evidence of professional negligence. Such an action will seriously jeopardize the defense of the case.

When the physician notifies the liability carrier of the lawsuit, the carrier will choose an attorney to handle the

Table 1. The initial meeting

- Thoroughly review the patient record and chronology of events
- Identify other sources of additional medical records
- Review the complaint (allegations being made)
- Describe contacts with patient and family
- Provide details of training and background (CV)
- Discuss other malpractice cases
- Educate defense attorney regarding medical issues
- Suggest potential experts for review and other sources of materials
- Discuss litigation time line (tentative)
- Establish expectations for communication and involvement
- Discuss case with *no one* but defense attorney and insurance representative
- Discuss the tentative defense plan

physician's defense. The liability carrier is usually well acquainted with attorneys who are skilled at defending medical malpractice cases. Liability carriers spend significant time observing and working with attorneys who defend medical malpractice cases and they have an interest in choosing only the most competent counsel. This is important. The physician who wants to have input concerning the choice of attorney must make that known in the initial notification of the carrier.

After reviewing the suit documents and the available medical records, the attorney will file a response or answer to the allegations made on behalf of the physician. A meeting between the physician and the attorney will be scheduled in the first days or weeks. Both the physician and the attorney should make the most of this face-to-face contact.

The initial meeting: laying the groundwork

The initial meeting between physician and attorney provides an opportunity to share information that forms the foundation of the defense. The physician also should prepare in advance to address the areas outlined in **Table 1**. Before the meeting, the attorney usually reviews the available documents, including the patient chart. The meeting is more productive if the attorney has a clear, complete copy of the chart. The physician should make sure that the attorney's copy of the records is in the correct order and that the documents are legible. Poor copy quality, illegible handwriting, or unusual abbreviations may impede the attorney's understanding of the events and an expert's ability to analyze the medical issues. If asked by the attorney, the physician may need to dictate a verbatim transcription of the records.

The meeting may take place in either individual's office as long as the necessary materials are available. In some cases, a meeting at the actual site of the patient interactions at issue may increase the attorney's appreciation of the events. At least one hour without interruptions should be scheduled in a private area. More than one meeting may be needed.

Anything the physician feels may be important to explain the events should be discussed with the attorney. The physician needs to educate the attorney about the medical issues by personal explanations and by other references the attorney can use, such as references to medical literature, pictures, potential expert witnesses or sources of related standards. In turn, the attorney should provide a tentative litigation time line for the physician, with an understanding that dates and events may continually change. The first meeting is a logical time for the attorney and physician to discuss the expectations about each other's communication and involvement during the litigation process.

The insurance representative will often attend the initial meeting and participate in the discussion. The cost of the defense and any judgment rendered against the physician are borne by the liability carrier according to the terms of the insurance contract. Thus, the carrier representative participates in the discussions concerning litigation strategy and settlement negotiations. The carrier often has the right by contractual agreement to settle the case according to its discretion. Even with that contract provision, however, the physician's consent generally is requested. The attorney represents the physician in all aspects of the case, but will not advise the physician on matters that may conflict with interests of the liability carrier. For example, to avoid conflict of interest, the attorney would encourage the physician to obtain personal counsel on questions related to inadequate coverage if the potential judgment rendered—a sum that usually is not determined until discovery is complete—could exceed the insurance policy limits defined in the contract.

Rule 3: do not discuss the case with anyone except the defense attorney or insurance representative. Once suit is filed, the attorney for the plaintiff and attorneys representing other defendants in the case should not contact the physician or his or her employees without going through the physician's attorney. If the physician or staff are contacted, they can politely refuse to answer questions without consulting counsel. During the course of litigation, the physician may interact with associate attorneys, paralegals, or secretaries with the assigned attorney's office. It is important for the physician to determine a person's identity before discussing

any aspect of the case. Once the physician is represented by an attorney, all interactions with *anyone* concerning the case should be done only through the attorney or in the attorney's presence.

Discovery: the body of pretrial litigation

The largest portion of the litigation process is occupied in discovery. Each side "discovers" information from the other side to define the facts and use against the opposing party. Interrogatories, requests for documents, and depositions are the most commonly used methods governing the exchange of information among the parties during discovery. Each is implemented in a prescribed manner and subject to procedural rules that range from the timing of responses to the acceptable method to use when refusing to give a response.

For the physician, the process of discovery begins after the summons and complaint are served. Because the attorney for the patient presumably completed some level of investigation into the allegations being made before filing the complaint, the physician often receives a set of interrogatories, a request for documents, and a notice for deposition along with the summons and complaint.

Discovery in Maryland and other states generally is conducted in an atmosphere of good faith. Time extensions may be agreed upon among the parties. When the court dictates deadlines or when an opposing party chooses to enforce the deadlines prescribed in the Rules, delays in responding can adversely affect the defense. The physician must adjust his or her schedule when necessary to participate in the discovery process. The scope of discovery in Maryland is broad and designed to permit parties to acquire knowledge of the contentions being made by opposing parties before trial, as well as facts relevant to the dispute. Interpretation is liberal and often a subject of dispute among the parties.

Interrogatories. Interrogatories are a pretrial discovery tool in which written questions of one party are sent to the opposing party, who must give written replies under oath. The patient's attorney sends to the physician's attorney a series of questions that concern the facts of the case and the physician's background. The physician's input is necessary to formulate accurate responses to many of the questions, even though the actual wording of the responses is usually determined by the attorney. Some of the questions will have legal implications that are not apparent to the physician. When a question requests information that is not subject to discovery, the response may be with an "objection."

The physician and attorney must collaborate in developing responses to the interrogatories. The physician's signature appears at the end of the final document affirming the truth of the information contained in the answers to interrogatories. Any questions or concerns should be discussed with the attorney before the final document is signed. Inaccuracies or material omissions that later become apparent can negatively affect the defense. The answers to interrogatories may be offered as evidence at the trial.

Each side is limited in the number of interrogatories it may send to another party. If one party obtains further material information responsive to the interrogatories before trial, however, he or she is expected to supplement the information already supplied in the original answers. For example, if the original response is that all medical records on the patient have been supplied, and the physician subsequently finds more documents, the original response must be supplemented.

All parties receive a copy of the answers to interrogatories. There may be a number of months or years between the time the answers are filed and the hearing or trial. Thus, the physician and attorney must review the answers again before the discovery period ends in order to supplement them if necessary. The answers should also be reviewed before the physician's deposition and before the trial.

Request for documents. A second routine discovery method is to request documents from another party to the case. The physician is involved in the identification and collection of materials responsive to the requests directed to him or her. The Maryland Rules do not limit the number of documents that may be requested. The requests typically relate to medical charts, radiographs, reports, other treatment documentation, information about the physician, and sources concerning the medical care at issue. Other items also may be requested, which occasionally becomes burdensome. Any materials forwarded to the opposing party must be carefully reviewed by the physician and attorney. The physician may later be asked questions related to the documents that are produced.

Deposition. The single most important pretrial discovery event for the physician is the deposition, in which testimony is given under oath. A deposition gives opposing counsel, as well as any other counsel involved in the case, an opportunity to question the physician face to face with a court reporter simultaneously recording the proceedings. The deposition occurs at an agreed-upon time and place. Coordinating the schedules of the participants is sometimes very difficult. All parties to the case will have representation at the deposition.

The deposition allows the attorneys to evaluate the demeanor of the deponent (person being deposed), discover additional details about the incident at issue and background information, and commit the deponent to a given set of facts or view of the case. One of the main goals of the opposing attorney is to obtain information that can be used to impeach or undermine the deponent's testimony at trial. In medical

Table 2. Preparing for the deposition

- Dress appropriately
- Remain calm
- Pause before answering
- Listen carefully to the question
- Understand the question before answering
- Examine exhibits carefully before answering
- Make the attorney ask the right question
- Answer only a question that makes sense
- Answer one question at a time
- Answer only what is asked
- Tell the truth
- Do not speculate
- Avoid absolutes (always, never)
- Be concise—more is not better
- Volunteer nothing
- Stick to your guns
- Be polite
- Do not argue
- Assume all communications with your attorney are privileged
- Follow your attorney's directions
- If your attorney objects, stop speaking
- Do not make "off the record" statements
- Do not accept attorney summaries of your testimony
- Take breaks if necessary
- Remember the opposing attorney is not your friend

malpractice cases, depositions are usually taken of physician and patient, expert witnesses who will testify for both sides, other health care personnel involved in the patient's treatment (physicians, nurses, therapists), and anyone else who has knowledge of the issues (family, friends).

Preparation for the deposition requires time and effort on the part of the physician and attorney and must not be minimized. The amount of time and the number of meetings depend on the complexity of the case, the physician's involvement in the case, the skill of the opposing attorney, and the physician's ability to handle intense questioning. The physician should be familiar with the patient's medical record. During the preparation, the attorney will review pointers on how to handle the deposition effectively, such as what to wear, what to bring, when to take breaks, and how to respond to questions. The attorney can review the type of questions that will be asked and the approach opposing counsel may take, but there will be inevitable questions that no one anticipated. The physician is advised not to guess or speculate, to answer only the question asked, to review presented exhibits thoroughly, to be concise, not to try to educate opposing counsel, to remain guarded during any so-called off the record discussions, and to be courteous. Other recommendations are listed in **Table 2**. The physician's testimony at deposition and trial has been likened to giving a performance.[8] In preparing for testimony, it may be helpful for the defense team to simulate the questioning that will occur at deposition or trial. Witness preparation services are sometimes used to help the physician learn how to convey a positive, caring image to a jury despite intense anxiety. It is important to remember, however, that the underlying rule of the entire process is to tell the truth. Ignoring this cardinal rule of self-preservation is dangerous.

Rule 4: be truthful and consistent in your testimony. Before responding to questions from opposing counsel, the physician should assume that all previous communications with his or her attorney, written or verbal, are privileged. Pausing briefly before answering a question gives the physician time to think about what is being asked and the attorney time to object or, if necessary, instruct the physician not to answer the question. Although instructions not to answer a question are infrequent, if the physician has already responded with privileged information, opposing counsel may argue that the "door has been opened" to that line of questioning.

As friendly and congenial as the opposing attorney may be and despite the bantering that may occur among all counsel, the physician must not lose sight of the adversarial nature of the process. It is safer to avoid participating in the small talk that often takes place before, during, and after the deposition.

After the deposition is transcribed, a verbatim transcript is created by the court reporter and distributed, upon request, to all counsel. The physician receives a copy of his or her testimony (deposition transcript), which should be reviewed promptly. Any questions or concerns should be reviewed with the attorney while the material is still fresh in the physician's mind.

As a party to the lawsuit, the physician has the right to attend any of the depositions taken in the case; most physicians do not since doing so takes time away from their practice. The attorney can decide when and if the physician's presence will be beneficial. Although the physician cannot ask questions, he or she can write down suggestions or speak with the attorney during a break to help in the process. The physician's presence may dissuade the patient from embellishing testimony or soften the criticisms of an opposing expert. Sitting through several hours of criticism from another physician, however, is not pleasant. The attorney takes all these factors into consideration before recommending that the physician attend the depositions of other parties or witnesses.

Rule 5: be very familiar with your deposition testimony. The attorney questioning a witness at deposition will try to obtain the extent of that person's opinions and knowledge of the relevant events in as much detail as possible. The attorney elicits favorable and unfavorable testimony and their basis. The limits of a witness' knowledge or opinions are also established. For witnesses who provide trial testimony, their courtroom responses will be compared to their deposition or prior testimony. Any apparent discrepancies will be challenged and provide fertile ground for cross-examination. Because witnesses who seem to change their testimony from one time to another are thought to be less credible, the physician should carefully review his or her own deposition or hearing transcript before providing trial testimony.

The technical nature of medical malpractice cases is felt to be beyond the knowledge of both the court and the jury. Therefore, the testimony of medical expert witnesses forms the central portion of the medical malpractice case. By questioning the opposition's experts in a deposition, an attorney learns the strength and focus of the criticism against the physician. In responding to questions during deposition, the medical expert witness may comment on many different aspects of the case. Only the opinions that the expert holds to a "reasonable degree of medical probability" rise to the level of legal significance.

Arbitration hearing versus trial

In 1976, the Maryland General Assembly passed the Medical Malpractice Act, which mandates arbitration of all medical malpractice claims prior to courtroom litigation.[9] The legislature sought to reduce the cost of defending medical malpractice cases by encouraging negotiation and screening out frivolous claims. Whether arbitration has accomplished that goal is debatable. Arbitration is viewed as a step toward litigation in court, a sort of "dress rehearsal." From the physician's standpoint, winning at arbitration is helpful. The result of the arbitration hearing is admissible as evidence in the judicial proceeding and is presumed to be correct.[10] The jury, however, is not bound to duplicate the arbitration panel's decision, but arrives at its own determination after considering all the evidence placed before it. Either party may reject the decision made by the arbitration panel and move the controversy to the Circuit Court level, where it is conducted as a trial de novo (i.e., the case is retried as if no previous trial had occurred).

Preparing for the arbitration hearing is similar to preparing for a court trial. The discovery that occurs before the arbitration hearing is also used in preparation for trial. After an arbitration hearing, additional witnesses may be added and used at trial, depending on the arbitration result and the effectiveness of the witnesses.

The arbitration is an opportunity to see the opposing party perform under the pressure of trial before the final jury trial. During the arbitration hearing, each side is educated about the other's strengths and weaknesses. From the defense perspective, the expense and time spent in preparing for an arbitration hearing are comparable to preparation for a jury trial. Although the outcome of an arbitration hearing may prompt settlement negotiations, an appeal of the result to the Circuit Court is also likely.

Until recently, arbitration could only be avoided or waived (after filing the medical malpractice claim with the Health Claims Arbitration Office) if all parties agreed to the waiver in writing. As of October 1, 1995, the process of waiving arbitration takes only the request of one of the parties.[11] What the change will do to future arbitration and the litigation of medical malpractice cases is uncertain. Whether or not the arbitration hearing is waived, the litigation process described in this article applies to preparation for either arbitration or trial. The importance of the physician's involvement remains the same.

Theory of the defense: making sense of what happened

As the case unfolds during the process of discovery, both favorable and unfavorable aspects of the facts will come to light. The defense approach discussed at the first meeting between physician and attorney may change as the impact of certain information is weighed and balanced from the viewpoint of experts, the defense team, and potential fact finders (jurors or arbitration panel members). Even immaterial facts can sway a fact finder. An unexplained lapse in a physician's postoperative monitoring routine may increase the culpability quotient regardless of whether the change in routine was related to the patient's injury. The complexity of the medical issues and the conflicting testimony may overwhelm a juror. The demeanor of the physician or the patient, lack of communication, or slipshod documentation of care ultimately may have more of an impact on a fact finder's decision than

Table 3. The elements of proof

The plaintiff must show that

- the physician owed the patient a "duty of care" (a physician-patient relationship existed);
- the physician breached that duty (deviated from the standard of care);
- the breach caused the patient's injuries; and
- the patient suffered compensable damages as a result of the breach.

logic dictates. Minimizing or dismissing an aspect of the evidence that will be presented to the jury can be a serious defense miscalculation.

Although the patient has the burden to prove by a preponderance of the evidence that the physician was negligent (**Table 3**), the defense will try to do more than attack the patient's version of the events and the medical causes of the injury. The defense will try to present logical, cohesive evidence of an alternative explanation for the outcome.

During the months and years of pretrial litigation, the theories of both sides can change dramatically. The pivotal issues at the time of trial may be far different from those initially predicted to be important. Making sense of the events may lead to varying explanations. As the defense explanation or theme develops and solidifies, witnesses and other evidence can be organized to support it. The defense wants to present a unified explanation of the events to persuade the jurors that the analysis of the patient's attorney is wrong and the analysis of the physician's attorney is correct even in the face of injury to the patient. Medical malpractice cases often end up becoming a battle of the experts or a competition pitting the credibility of the patient against the credibility of the physician.

When there are several health care defendants in a case, cooperation is generally felt to be more prudent than having the codefendants blaming each other. The latter approach allows the patient's attorney to sit back and observe as the codefendants "make" the patient's case. The strategy of "divide and conquer" has been used effectively to defeat an otherwise credible defense. When possible, a united or cooperative defense theme benefits all defendants.

Preparation for trial

As the date for the trial or hearing approaches, the physician needs to prepare for his or her testimony and participation. The physician usually sits with the attorney at the defense table during the entire trial to underscore concern for the case and the desire to confront directly the accusations being made. The physician's physical presence is important in portraying the physician as a caring, committed, competent person, in contrast to the patient's attempt to depersonalize the physician and cast him or her as negligent. Because the jury will scrutinize the physician giving testimony on the witness stand, sitting at the defense table, and standing outside the courtroom during breaks, the defense goal is to have the physician make the best possible impression on the jury. To do so requires preparation.

The defense attorney will question the physician in direct examination on the witness stand, at which time the physician tells the jury about his or her background and recollection of the events at issue. Because leading questions are not permitted during direct examination, the physician and attorney need to plan the questioning so that there is a smooth flow to the physician's responses. Effective direct examination looks easy, but it is not. How members of the jury assess the physician's competence and credibility is determined not only by the physician's command of the facts and issues, but by their evaluation of the physician's ability to communicate effectively even during a time of stress. The physician's body posture, eye contact, tone of voice, and style of communicating are all important.

After direct examination, the opposing attorney will cross-examine the physician and may focus on discrepancies in the physician's previous testimony or written documentation of events. The attorney may attempt to shake the physician's composure to show the jury the physician is not credible. A witness who is easily angered or very anxious is a prime target for an opposing attorney.

Rule 6: work closely with your attorney. During the trial, the physician should listen closely to the testimony presented to identify inaccuracies or points that can be used by the defense attorney. Not all discrepancies will be used. How and if they will be used is best left to the attorney's judgment. To avoid disrupting the attorney's concentration during the trial, the physician should write questions and observations on a pad of paper (notes are privileged and need to be protected as such).

The normal sequence of events at trial involves the presentation of the patient's case and then the presentation of the defense. The physician is usually called as a witness during the defense, but it is not unusual for the plaintiff's attorney to call the physician during the plaintiff's case, even as the first witness. The element of surprise and lack of preparation can negatively affect the physician's testimony. Although a certain amount of anxiety can be advantageous, a high level

Six rules to remember

- Notify insurance carrier immediately.
- Do not alter records in any way.
- Do not discuss the case with anyone except the defense attorney and/or the insurance representative.
- Be truthful and consistent in your testimony.
- Be very familiar with your deposition testimony.
- Work closely with your attorney.

can disrupt the physician's concentration and memory. Preparing for trial testimony entails review of prior testimony, discussions with the attorney about the defense strategy, anticipation of potential problem areas, familiarity with the pertinent records or documents, and actual practice sessions. Most of the instructions that were given before the deposition apply to trial testimony as well.

The outcome—win, lose, or settle

The length of time during which a panel or jury deliberates may vary greatly. The attorneys for each side will remain "on call" to receive the verdict and answer any questions the jury or panel may have during deliberations. After the decision is announced, the attorneys will often speak with the jurors or panel members to gain insight into the rationale for their decision

Various procedural rules govern the filing of posttrial motions and appeals. The likelihood of attempts by either party to seek revision or reversal of the decision is case specific. Final resolution of the case is not certain until posttrial remedies are exhausted or precluded by the passage of time. A medical malpractice case that has been filed with the Health Claims Arbitration Office, completed the arbitration process, been tried again before a jury, and appealed to a higher court can end up going through a jury trial again before it is finally concluded. The process takes years. The admonitions of the defense attorney concerning communication with those involved in the case and the opposing side continue until the case is finally resolved.

Settlement

Another potential outcome is case settlement. Although settlement negotiations can be addressed at any time, they are often broached by either party at the beginning of the case when liability is apparent to one or both sides; after discovery is completed and each side has an appreciation of the strengths and weaknesses of the other; and after a decision in favor of the patient. Defense attorneys maintain that the best way to settle a case is to prepare it for trial. In other words the preparation of the defense is not changed by the possibility of settlement.

The physician is an important variable and participant in the decision to settle a case. After all, the physician is a key witness for the defense. The ultimate decision to settle is usually dictated by the liability contract that covers the physician's professional actions. The liability carrier may have the final decision regarding settlement. The decision to settle reflects a realistic analysis of the chances of the jury or panel rendering a decision for the defense and the potential consequences of an adverse decision.

Many physicians are uncomfortable with a decision to settle a case. In addition to the implications of a report being made to the National Practitioner Data Bank, settlement is often viewed as defeat. Settlement, however, is not a determination of guilt or liability, but a financial disposition of a case without a decision "on the merits." Settling a medical malpractice case does not mean that the physician committed malpractice. Physicians who have been involved in the litigation process and participated in the decision making are better prepared to understand a decision to settle within the context of the case and less likely to interpret settlement as a reflection of professional worth.

Physicians do not consciously choose to subject themselves to the rigors of being a defendant in a medical malpractice case. Surviving the experience with faculties intact, regardless of the outcome, is a worthwhile and achievable goal. Successfully defending a medical malpractice lawsuit is a team effort that requires the skill of both the physician-defendant and the attorney. It is critical that the physician learn how to collaborate and cooperate with the attorney in developing a reasonable and credible defense that presents the physician in the best possible light. Despite the tremendous drain on the physician's time, energy, and emotions, understanding the litigation road map and actively participating in the defense will have a positive impact on the outcome.

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Are you a physician employee or independent contractor? You may be in for a surprise ruling from the IRS

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Physicians who contract to provide services in a hospital setting are coming under the scrutiny of the Internal Revenue Service. Emergency department physicians, radiologists, anesthesiologists, and even cardiologists who are hospital based may have their contracts inspected by the IRS under revamped guidelines issued last summer. Physicians who contract with hospitals or other entities *individually* are more at risk than those who contract as a group. However, the IRS is also studying group contracts. Protection was usually afforded a group since a group usually has dedicated office space. That protection is now fading.

The regulations that specifically identify physicians as independent contractors are being reinterpreted. The IRS stance is that these regulations are altered when physicians contract with hospitals or other health care organizations. Group practices without walls are also at risk under the new guidelines. The change in guidelines refers to Section 530 of the 1978 Revenue Act, which had offered protection to companies in independent contractor situations.

IBM was recently audited for a seven-year period ending in 1992 in reference to both current and past independent contractors. The IRS is targeting hundreds of firms with "compliance checks" asking to review 1099 and W-2 forms. According to *The Kipplinger Tax+ Letter*, these checks sometimes turn into full-blown audits.

The IRS has closed 17 of 45 health care audits that have resulted in settlement agreements. Purportedly averaging $1 million (ranging up to $5 million), these settlements are negotiated by the hospitals after finding that the physicians they contract with for services (reading ECGs, etc.) are considered employees. Hospitals must then pay federal income tax, FICA, and state taxes for these employees. The current reading of the regulations unfortunately is being applied to years that are prior to the new directives.

How the IRS distinguishes an employee from an independent contractor

1. **Instructions:** Is the person providing services required to comply with instructions about when, where, and how the work is to be done?
   - ***Employee*** must comply with employer instructions as to when, where and how he or she is to work.
   - ***Independent contractor*** follows own instructions
2. **Training:** Is the person provided training to enable him/her to perform a job in a particular method or manner?
   - ***Employee*** must be trained by an experienced employee to perform the tasks assigned in a particular fashion.
   - ***Independent contractor*** does not require training.
3. **Integration:** Are the services provided integrated into the business' operation?
   - ***Employee*** services are necessarily integrated into the business' operations.
   - ***Independent contractor*** integration of services is not personal.
4. **Services rendered personally:** Must the services be rendered personally?
   - ***Employee*** is required to render services personally, implying the employer is interested in the methods used to accomplish the work.
   - ***Independent contractor*** is not required to render the services personally.
5. **Hiring, supervising, and paying assistants:** Does the business hire, supervise, or pay assistants to help the person performing the services under contract?
   - ***Employee*** is hired, supervised, and paid directly by the employer to perform services.
   - ***Independent contractor*** hires, supervises, and pays his/her own assistants to accomplish the work, indicating that the worker is responsible only for attaining a certain result.
6. **Continuing relationship**: Is there a continuing relationship between the individual and the person for whom services are performed?
   - ***Employee*** maintains a continuing relationship with the employer, which may include instances where work is performed at recurring but irregular levels.
   - ***Independent contractor*** is not necessarily assumed to have a continuing relationship with the person for whom services are performed.
7. **Set hours of work:** Who sets the hours?
   - ***Employee*** is required to perform work during set hours established by the employer.
   - ***Independent contractor*** establishes own hours.
8. **Time required:** Is the worker required to devote full time to the person for whom services are performed?
   - ***Employee*** usually is expected to devote full time to the business, implying that the worker is restricted from performing services for other businesses.
   - ***Independent contractor*** is free to work when and for whom he or she chooses.
9. **Work performance site:** Is the work performed on site?
   - ***Employee*** performs the work on the employer's premises, notably when the work could be performed elsewhere. The significance of this factor depends on the nature of the service involved and the extent to which the employer requires on-site performance.
   - ***Independent contractor*** performs work elsewhere, such as his or her office.
10. **Order of sequence:** Who directs the order and sequence in which the work must be done?
    - ***Employee*** is required to follow employer's instructions.
    - ***Independent contractor*** is free to follow own pattern.

K. C. Lycett, an accountant who is vice-president of Universal Healthcare Placements in Baltimore states that there is another area of concern other than taxes and FICA. Workers' compensation would also become an issue, as would providing health insurance, pension plans, etc., to those deemed to be employees.

Rulings last March focused on physicians who read ECGs for institutions with multiple settings, surgical centers, nursing homes, and hospitals. In one case, the fact that physicians rotated through shifts on a weekly basis and received a set fee for interpretations of ECGs had a profound effect. The IRS found that this piecemeal work made them employees under the 20 question rules (see sidebar). The physicians were subject to the institutions' direct control and were paid whether the hospital was paid or not. Furthermore, the hospital credentialed the physicians to read ECGs and determined the working hours. There was no risk of profit or loss to the physicians and they could rescind the agreement with 30 days' notice. Had the doctors contracted as a group through their P.C., they would have had a more significant argument stating that they were employees of the P.C.

The issue has generated enough concern that the United States House of Representatives is considering legislation (HB 1972) to simplify the tax rules with respect to independent contractors. The proposed bill would establish firm guidelines for interpretation. At the 1995 White House Conference on Small Business, conference delegates made this issue the number one priority for Congress to address. Conferees felt that the current guidelines were "too subjective" and thus open to wide and varying interpretations.

11. **Reporting requirements:** Are regular oral or written reports required?
    - ***Employee*** is required to submit regular reports to the employer.
    - ***Independent contractor*** is not necessarily required to submit regular reports to the employer.

12. **Payment scheme:** Is the method of payment a commission, by the hour, or by the job?
    - ***Employee*** payments are received by the hour, week, or month.
    - ***Independent contractor*** receives payment by the job or on a straight commission.

13. **Payment of business and/or travel expenses:** Are business and/or travel expenses reimbursed?
    - ***Employee's*** business and travel expenses are normally reimbursed by the employer, indicating that the employer retains the right to regulate and direct the employee's activities.
    - ***Independent contractor's*** expenses are the responsibility of the worker.

14. **Furnishing tools and/or materials:** Who furnishes tools and materials used in services provided?
    - ***Employee's*** are provided by the employer.
    - ***Independent contractor*** generally furnishes own tools and materials.

15. **Investment in facility:** Does the person providing services have a significant investment in facilities used to perform services?
    - ***Employee*** lacks investment in the employer's facilities, indicating the worker's dependence on the employer's facility in order to perform the work.
    - ***Independent contractor*** invests in facilities in order to perform the work, such as an office rented at fair market value from an unrelated party.

16. **Realization of profit and/or loss:** Can the person performing the services realize both a profit and/or a loss?
    - ***Employee*** cannot directly realize a profit or suffer a loss as a result of his/her services.
    - ***Independent contractor*** is subject to, for example, a real risk of economic loss due to investments, or liability expenses such as salary payments to unrelated employees.

17. **Services provided to more than one business concurrently:** Can the person providing services work for a number of firms at the same time?
    - ***Employee's*** services are available to only one employer at a time.
    - ***Independent contractor*** performs services for a number of unrelated persons or businesses simultaneously.

18. **Services available to the general public:** Does the person make his or her services available to the general public?
    - ***Employee's*** services are available to only one employer at a time.
    - ***Independent ccntractor's*** services are made available to the general public on a regular and consistent basis.

19. **Right to terminate:** Is the person providing services subject to dismissal for reasons other than nonperformance of contract specifications?
    - ***Employee*** can be discharged and employer exercises control on how the employee performs through the threat of discharge.
    - ***Independent contractor*** cannot be fired so long as he or she produces a result that meets contractual specifications.

20. **Right to withdraw:** Can the person providing services terminate the relationship without incurring a liability for failure to complete a job?
    - ***Employee*** has the right to terminate the relationship at any time without incurrence of liability.
    - ***Independent contractor*** can terminate services but only at the risk of financial loss or breach of contract litigation.

Under the proposed bill (HB 1972), new standards would be in effect. Independent contractors are deemed to be such if they have a significant investment in assets and/or training, incur significant unreimbursed expenses, agree to perform the service for a particular amount of time or to complete a specific result, are liable for damages for early termination without cause, are paid primarily on a commissioned basis, or purchase products for resale. In addition, the independent contractor has a principal place of business, does not primarily provide the service in the service recipient's place of business or pays a fair market rent for use of the service recipient's place of business, or is not required to perform the service exclusively for the service recipient. Finally, in the year involved or in the preceding or subsequent year, the independent contractor must have performed a significant amount of work for others and must have offered to perform work for others through advertising, oral or written solicitation, or listing with referral agencies.

The Secretary of the Treasury had until January 1, 1996, to submit to the House Ways and Means Committee a legislative proposal providing statutory standards for the classification of workers as employees or independent contractors.

Chancellor & Chancellor, a California CPA firm, has introduced a service for independent contractors: acting as an intermediary between employers and independent contractors for a fee of $4.00 per billable hour. The CPA firm completes the IRS-required Personal Services Agreement for the independent contractor and the employer at no additional expense. The firm's literature states that compa-

nies in California are requiring brokers for billing purposes in an effort to protect themselves.

The owner of a medical transcription service in California was recently audited and queried at length about her relationships to her transcriptionists. After the owner produced canceled checks, 1099s, contracts, federal and state tax returns, Schedule C records, invoices from her transcriptionists, and check registers, the transcriptionists were individually contacted. All parties were subjected to an inquiry consisting of the IRS' 20 questions. The owner of the medical transcription firms states that the concentration was on having more than one client (a no answer is dangerous), having a business plan, being listed on a 1099 by Social Security number rather than by employer identification number, not using the client's equipment, not having your own employees, and having a business line as opposed to using a home telephone number as a business line.

According to the American Institute of Certified Public Accountants (AICPA), the IRS will probably ask for copies of 1099s to ascertain the number and identity of the contract workers. Cash disbursement journals, payroll records, and accounts payable vouchers are used for the same purposes and to identify the type of services provided by the contractor. Contracts are reviewed in an effort to apply the 20 questions test. Although written contracts are not always used in the health care setting, the AICPA recommends their use to validate the relationship. The AICPA stresses that the importance of record keeping cannot be emphasized enough.

The IRS has issued a 20-question guide for independent contractor status. Also available is IRS Publication 937 (*Employment Taxes and Information Returns-Employee or Independent Contractor*) which details independent contractor status information. IRS Form SS8 (Determination of Employee Work Status) is a four-page, 19-question document that is to be filled out by the firm that is contracting with the independent contractor.

Under common law, workers are employees if the person for whom they work has the right to direct and control the way services are performed. It is the view of the IRS that the employer need not exercise control, but has the right to do so. The 20 questions used to determine employment status bear discussion individually. *They are not the same questions found on the SS8 form from the IRS.*

The AICPA advises that the consequences of an employment tax audit can be financially burdensome. Although the 20 questions are weighted, answering yes to any of them could make you an employee. If the IRS finds that contractors are employees, then workers will have to be reclassified as employees from that date forward, taxes as far back as six years must be paid by the employer (who can sue the contractor for reimbursement of those taxes), employee benefits will then come into play, and there will be a loss of independence.

A word of caution: both a CPA and an attorney who *specializes* in health care should review or draw up your contracts for services you provide outside your office. Your current contracts and situations should be reviewed as soon as possible. ■

BLOOD PRESSURE cuffs are more accurate than finger blood pressure devices, according to a study presented at the 1995 Scientific Assembly of the American Academy of Family Physicians. Results were obtained in 100 consecutive patients whose blood pressure was measured by a medical professional first using a cuff and then each of three finger devices. Device-measured systolic and diastolic readings varied by 10.8% and 15.6%, respectively, compared to cuff readings. In 69% of patients, device readings were lower than cuff readings, and in 31%, device readings were higher.

Source: Am Fam Physician 1995;52:1081-1082.

WORDS TO LIVE BY

"There is one potential pitfall to doing extensive research on how [medical malpractice] insurance companies handle claims. If you file a claim, the company may hold that your due diligence proves you 'expected' to be sued and hence, coverage is void. If an insurance company ever says 'no' or 'maybe' to a claim, you should consult expert legal counsel immediately."

Source: Anderson ER, Gold J. Are you covered? *American Medical News*, December 11, 1995:13-15.

The medical schools of Maryland . . . and then there were two

Before medical schools were founded in this country, students went abroad or served a preceptorship under an established physician to obtain an education.[1] Teaching was usually conducted only by direct exposure to illness and too often the pupil had little time for study. Although individual doctors occasionally gave a series of lectures on topics within their fields of expertise, an organized curriculum did not exist until the Medical College of Philadelphia was established in 1765.[2] To obtain a doctor of medicine degree, the faculty specified that three years had to elapse; that a candidate must have reached 21 years of age; and that he had to write, defend, and publish a thesis. It was here that John Archer of Maryland received the first bachelor of medicine degree awarded in America (1768), but he was not among the four candidates who returned in 1771 to receive the doctor of medicine degree. In 1789, after the union of the school with the University of Pennsylvania, the practice of conferring a preparatory diploma was abandoned.[1,3,4] The second American medical school was established in 1768, when King's College (later, Columbia University) started its medical college. Here, two candidates received bachelor of medicine degrees in 1769 and 1770; one received the first doctor of medicine degree awarded in America. Harvard (1782) and Dartmouth (1798) completed the list of American medical schools until one was founded in Maryland.[3]

At the time of the American Revolution, about 3,500 physicians were available to care for a population of 3 million, but only about 400 of the doctors possessed a medical degree. In New England, clergymen often provided medical care. American medicine took shape in the eighteenth and early part of the nineteenth centuries, although its medical teachers had little formal training. Those who hoped to establish minimal standards of instruction experienced considerable difficulty. Without a regulating agency, curricular requirements were meager and ill-defined.[4,5] One result of the uncertain atmosphere was the uncontrolled appearance and growth of medical schools. By 1840, 26 new schools were established; by 1875, another 47 appeared. Some schools were created to fill special needs.

In 1850, a Tennessee survey showed that of 201 physicians serving 164,000 people, only 35 had graduated from a regular medical school; another 42 had had a course of lectures, but had not graduated; 27 had had an irregular or uncertain education; and 97 had no formal instruction. Surveys of Maryland are not available for that period, but it is likely that there were few differences in various parts of the country.

Maryland medical schools number 1 and 2, 1789

The earliest attempts directed toward medical education in Baltimore were made at "schools" conducted by Drs. George Buchanan and Andrew Wiesenthal.[6,7] The former gave a course on "diseases of women and children and the Brunonian system" to nine students, and the latter lectured on "anatomy, physiology, pathology, operative surgery, and the gravid uterus" to a class of 15. The Brunonian system pertained to a system of medicine formulated by John Brown (1735-1788) based on the doctrine that disease consisted in excess or deficiency of excitation of external agents upon the body.

Dr. Wiesenthal's "school" was situated on Fayette Street, east of Gay Street, in the rear of his residence. All of the conveniences for dissection were present. Dr. Wiesenthal continued his lectures to a class of private students until his death in 1798.

Schools number 3 and 4, 1807 and 1837

In 1807, John Shaw drafted a bill that led to the formation of the College of Medicine of Maryland.[8] In the autumn of that year, he joined Drs. John B. Davidge and James Cocke in giving a full course of lectures to medical students. The bill chartering the institution was

passed by the Maryland legislature on December 18. The lectures continued during the winter of 1807–1808 with the accumulated respect derived from the blessing of legislative action.

Classrooms with improvised apparatus and accessories were in the professorial residences, although some lectures were delivered at the Almshouse. A dilapidated schoolhouse on Fayette Street at the corner of McClellan's Alley was subsequently secured and used until the new home on the northeast corner of Lombard and Greene streets was completed. The college conferred the degree of doctor of medicine on six graduates in 1810.[9]

The need for a suitable building to house the college was markedly apparent, and numerous methods were explored to pay for it. Because a proper structure could not be found, a resolution was made to build one. In that era, lotteries were a favorite method to raise money. In addition to funding the project in mind, they were a source of revenue for the state. The legislature authorized the drawing of a lottery for the benefit of the College of Medicine in Maryland in 1808.[10] Most of the commissioners designated by the act, however, made little progress with their work. A subsequent piece of legislation designated the regents to appoint the necessary commissioners.[11] Dr. Cocke, chosen to supervise the financial project, was paramount in raising the money needed to support the college and erect the building on Lombard Street. Successive lotteries were held until the legislature ended the affair because the privileges granted to the college actually hindered the scheme for raising the needed revenue.

A most unusual event occurred December 29, 1812.[12] A university was grafted to the medical college, which then became known as the Faculty of Physic of the University of Maryland.

All apparently went well in the school until the spring of 1826, when the first of a series of unpleasant events arising from a contentious faculty occurred. The individuals involved were not peculiar to this school, as their colleagues could also be observed acting in a similar manner in other institutions at later dates. The desire for personal recognition and professional advancement spurred many of these doctors to partake in unconscionable episodes.

Professor John B. Davidge had been wont to take private students for instruction on two nights per week. Later, he was joined by Professor Elisha DeButts in these activities. By 1824, the class had grown so large that it could not be accommodated in their private offices. Other faculty members opposed the extramural training, maintaining that it was not authorized by the regents, and subsequently declared that the courses were illegal. The two professors, averring restriction of personal rights, were resentful and successfully encouraged a movement to turn control of the school over to the state. The Act of 1826 dismissed the board of regents and vested control of the institution in a board of trustees that was given all the duties and powers previously belonging to the regents.[13] The latter were not docile during these proceedings and requested a suspension of the action. Although the regents' appeal was unheard, the trustees had a difficult task when they assumed control. A number of faculty members were forced to reapply for their positions and they submitted with ill grace.

Davidge fared no better with the trustees. Although he applied personally, with support from his students, for the restoration of his extramural privilege, the board denied his request.

The lives of the trustees, however, were miserable. When they chose Dr. William H. Baxley for the chair of anatomy over Dr. William N. Baker, who was favored by the faculty, a number of professors resigned.

Feeling that they still had the power to run the school, the regents reconstituted themselves by virtue of their original appointments. While pursuing a legal attack, they started their own school. Thus, for a period of two years (1837–1839), two Universities of Maryland existed: that of the regents, extramural and unrecognized by the existing law; and that of the trustees, in possession of the buildings and supported by the state.

The regents' school included Drs. Samuel G. Baker in the chair of materia medica, Nathan R. Smith as professor of surgery, John Byrne as demonstrator, and William A. E. Aiken as professor of chemistry. The new school was located in the southern part of the

Baltimore House on the northeast corner of Baltimore and Hanover streets, formerly known as the Indian Queen Hotel. The total number of students attending both schools was considerably less than it had been in previous years under the regents. Nearly all of the city students attended the regents' school.

The ensuing legal action initiated by the regents was first tried in a county court and decided in favor of the trustees. In 1839, however, the Court of Appeals reversed the action of the lower court.[14] Meeting immediately after the decision was rendered, the regents requested that the state direct its agents, the trustees, to surrender the property involved and the state acquiesced. An additional act, passed at the same session, validated all the diplomas granted by the schools from 1826 to 1839.[15] The episode ended the reign of the trustees, and the university reverted to being a private corporation controlled by its faculties.

In 1882, an act supplementary to that of 1813 authorized the regents to grant degrees, diplomas, and certificates to students of dental surgery, pharmacy, and other cognate branches of the medical sciences.[16] That situation continued until July 1, 1920, when an act of the legislature merged the University of Maryland with the Maryland State College, originally chartered as the Maryland Agricultural College.[17] All property owned by the old University of Maryland was delivered to the board of trustees of the Maryland State College. That board was then made the board of regents of the new institution, now known as the University of Maryland.

School number 5, 1825

Dr. Horatio B. Jameson, an 1813 graduate of the University of Maryland School of Medicine, was a well-known and esteemed physician, surgeon, and author.[18] His efforts to attain a faculty position at his alma mater, however, were fruitless. Eager to teach, he applied for a state charter for a new school, but due to resistance from the university, his request was denied. Jameson then turned to a small liberal arts college in Washington, Pennsylvania, that authorized him to establish a medical school in Baltimore under its charter. A second attempt to secure recognition by Maryland in 1832 was successful. Seven years later, growing prosperity occasioned a change in the school's name to the Washington University of Baltimore. Instruction was given in a new building in 1849, but two years later, continued expansion and lack of funds resulted in closure. The school graduated more than 200 doctors, although the annual average was less than 10.

During the early years, the curriculum was taught by six medical school departments with sessions extending from October until March. Aware of the need for a longer training period, the faculty urged all who could do so to extend their studies over three years. The location of the hospital within the college building enabled the students to establish close contact with patients and medical faculty.

Students could spend summers as residents. The practical experience gained in these periods was strengthened by biweekly lectures and frequent examinations. The cost for summer instruction was $10 per professor, and the student could elect a desired number of courses. A complete set of tickets could be obtained for $50. Matriculation was never large at Washington. From 1828 to 1838, of 181 matriculants, 100 (56%) earned the medical degree, a number greater than that found in most contemporary schools.

A reincarnation of the school occurred in 1867 because a doctor was denied a faculty position at the University of Maryland. Dr. Edward Warren, who had been a professor there before the Civil War, then gathered a group of physicians and surgeons who sought and obtained the unused charter of Washington University and reopened the school. In 1872, disagreement among the faculty members led to Dr. Warren's resignation. He and other physicians founded the College of Physicians and Surgeons of Baltimore. That event eventually proved to be the coup de grace for Washington University, and in 1877, it merged with the newly formed college.

School number 6, 1872

The College of Physicians and Surgeons of Baltimore was organized at the northeast corner of Lombard and Hanover streets, with the first session being held in

October 1872. The faculty included Drs. Warren, Opie, Lynch, Byrd, Murray, and Goolrick. In the first session, there were 42 students with 18 graduates. In 1877, City Hospital came under the control of the college.

Tranquility was lost there in 1884, when a dispute arose about the filling of three vacancies on the board of directors. One faction, led by Dr. Byrd, procured a building in East Baltimore, while the second faction, supporting Dr. Munroe, located in the northern part of the city. Thus, two faculties, each claiming to be the rightful Baltimore Medical College, existed. An editorial in the *Maryland Medical Journal* lamented the event.[19] In suit, the Supreme Bench of Baltimore City halted the activity of the school sponsored by Dr. Byrd. A final act occurred later in 1884, when a faction composed of both faculties founded a new corporation, the Baltimore University of Baltimore City. That school merged with the University of Maryland in 1915.

School number 7, 1882

In 1882, four medical schools for women existed in the United States: one each in Philadelphia and Chicago and two in New York City. The Woman's Medical College of Baltimore was organized when seven local physicians signified their interest in the undertaking and a formal charter application was approved.

A three-year graded course was initiated that later was changed to four years. During its 28-year history, the school graduated 116 women physicians (145 matriculants did not graduate). Financial instability and lack of an attachment to a university to provide help led to the school's closure in 1910.

School number 8, 1882

When the Baltimore University School of Medicine was started, only two years were required for a degree of doctor of medicine. In 1892, however, the college announced that it would require three sessions. The school's first home was at 233 East Baltimore Street. From 1887 to 1889, it was located at 21-29 North Bond Street. The last class was graduated in 1907, and the school became extinct because of a lack of funds, a weak faculty, and poor management.

School number 9, 1890

In May 1890, articles of incorporation for another medical school, located at 323 North Paca Street, were submitted. Called the Southern Homeopathic Medical College (later, the Atlantic Medical College), its enrollment was always small; in 1898–1899, it reached a high with 40 students, of whom 10 were women. Sessions were six months in length with a three-year curriculum. Before entrance, the student had to have spent a preliminary year with a preceptor. Calvert Hall, located on Saratoga Street opposite Little Sharp Street, was purchased to house the school. The site, that of the first Roman Catholic Church in Baltimore, had been occupied by the Christian Brothers to serve as a collegiate institute. The medical school was closed in 1910.

School number 10, 1893

The Johns Hopkins University School of Medicine opened 17 years after the university was founded and four years after The Johns Hopkins Hospital was completed.[20] Part of the delay was occasioned by the desire to have an equipped hospital in operation before students were accepted. The stay permitted time and opportunity to assemble an excellent faculty.

The endowment permitting the opening of the medical school was raised chiefly through the efforts of a group of women. In 1890, Nancy Morris Davis informed the trustees of the university that a sum of $102,000 had been accumulated. Later, Mary Elizabeth Garrett contributed $306,977 to reach the $500,000 required by the trustees. The conditions of both gifts were the same: that women should be admitted on the same terms as men and that a Women's Advisory Committee of six women be formed, to whom women in the medical school could apply for assistance in nonmedical matters.

Hopkins was the first medical school in the United States to require a college degree for admission. Its students were expected to master the basic principles and obtain sufficient knowledge to practice medicine well.

At the school's initiation, William Osler came from the University of Pennsylvania to head the department of medicine, William S. Halsted was the chief surgeon,

Howard A. Kelly had the chair of gynecology and obstetrics, and William H. Welch was the professor of pathology and dean. From the outset, all the professors in the preclinical branches were on a full-time basis, a distinct innovation in American medicine.

School number 11, 1898

The Maryland Medical College of Baltimore, situated at 1114-1120 West Baltimore Street near Carrollton Avenue, provided three years of instruction with eight-month terms. The dispensary associated with the college furnished considerable material for student instruction. The National Temperance Hospital was a part of the educational system. In 1901, the college acquired a building at the corner of Calhoun and Fayette streets, facing Franklin Square, to serve as a hospital. At that time, the National Temperance Hospital changed its name to Franklin Square Hospital. In 1902, another year was added to the curriculum to make a mandatory four-year course. The college became extinct in 1913.

School number 12, 1900

The Medical and Surgical School of Christ's Institution of Baltimore City apparently was an enterprise created by African-American men to provide professional opportunities for black people. Little information, however, is available about this short-lived and undocumented facility.

School number 13, 1912

The Eastern University School of Medicine of the City of Baltimore, Inc., resulted when a small group of Baltimoreans formed a corporation to give general instruction in medicine and surgery. The institution had three different names in as many years. The American Medical Association reported that its dean had failed the Maryland license examination. The college, not recognized by the State Board of Medical Examiners, was dissolved in 1915.

Discussion

Present-day physicians know relatively little about the numerous Baltimore City medical schools, with the exception of those of the University of Maryland and Hopkins. Each of the extinct schools had its peculiar problems. Although having weak curricula from a contemporary standpoint, they were not totally inadequate. In many instances, faculty members of these schools represented the best of the Baltimore profession; they were well-qualified doctors who taught the best medicine possible while in competition with other institutions. Many taught for nominal salaries or none at all. Among others, many names are recognizable from their Med Chi activities: Baxley and descendants, Bond (father and son), Byrd, Cone, Cordell, Foard, Fonerden, Quinan, and Trimble.

In those times, a growing and prosperous nation needed and strongly demanded more enlightened medical care. The immediate result was a profusion of new schools, although some were opened for specific reasons. The Woman's Medical College offered education to women at a time when they were being excluded from male institutions. Such schools later became extinct when coeducational training was offered. A demand for homeopathic medicine led to the creation of the Atlantic Medical College. It is unfortunate that the desires of the founders of the Medical and Surgical School of Christ's Institution were never realized.

In 1910, Abraham Flexner, in a review of medical schools in the United States and Canada, included a number of critical comments about those in Maryland.[5] He examined seven Maryland institutions and concluded that Hopkins was the only one which "ought to or can survive." He thought the Atlantic Medical College and the Maryland Medical College were among the worst in America, that the Baltimore Medical College and the Woman's Medical College were weak, and that the College of Physicians and Surgeons and the University of Maryland were largely commercial enterprises whose financial responsibilities were far too extensive for their capital or fee income.

At that time, the State of Maryland had two boards to license physicians: regular and homeopathic. Candidates refused licensure by the regular board could subsequently appear before the homeopathic board, where the examinations were reported to be easier.

The degree of doctor of medicine is currently granted only after the successful completion of a structured, four-year course in an approved medical school. The legislative act[8] that formulated the founding provisions of the College of Medicine of Maryland, however, also was concerned with honorary degrees. The text reads in part:

> That the Regents shall, at any time have the power of conferring the honorary degree of doctor of medicine on any physician who has practiced physic for twenty years within the state of Maryland, and of conferring the honorary degree of bachelor of medicine on any one who has practiced physic for ten years within the same.

Another unusual provision in the act stipulates:

> That until further arrangements be made by the Regents of the said college, John B. Davidge, M.D., and James Cocke, M.D., shall be joint professors of anatomy, surgery and physiology, George Brown, M.D., shall be professor of the practice and theory of medicine, John Shaw, M.D., shall be the professor of chemistry, Thomas E. Bond, M.D., shall be professor of materia medica, and William Donaldson, M.D., shall be professor of the institutes of medicine.

Shaw, Bond, and Donaldson, however, had not graduated from a medical school and were not entitled to the degree designated in the law. While the bill was passing through the legislative process, it was remarked that despite the names having been submitted correctly, a reason for all not being doctors was not apparent. Because no objection was raised, these untitled men became doctors of medicine by an act of the assembly—perhaps the only recorded instance of a medical degree being obtained in such a manner.

Washington University awarded 18 honorary degrees during its first period of existence, but none in its second.[18]

The University of Maryland has recognized the accomplishments of 57 individuals in Maryland and other states by awarding them honorary degrees in medicine,[6,7] the last issued in 1880. Included in the list are:

- **William Donaldson,** a pupil of Dr. Miles Littlejohn, who also attended lectures at the University of Pennsylvania. One of the founders of the College of Medicine of Maryland, he was professor of the Institutes of Medicine for one year. He was an outstanding physician and teacher.

Flexner alleged that the Atlantic Medical College dropped the word *Homeopathic* from its title to become a haven for rejected regular students. Evidence to support Flexner's allegation may be found in a review of the class of 1892, which had 13 graduates. Seven candidates received honorary degrees and had previously been given a doctor of medicine by some other institution; five had a degree from another institution and were given another diploma; and only one received a medical degree in the usual manner. Many apparently failed the regular state board examinations, but could now appear before the homeopathic board. In 1908, of 27 Atlantic graduates, almost all had failed at other schools or before the regular state board. By attending Atlantic, they qualified to appear before the homeopathic board.

Many of the medical schools were private ventures with little teaching equipment and a curriculum of mostly didactic instruction. Preliminary requirements were inadequate and courses were short. The creators of most of the schools did not realize that a medical school had to be part of a university associated with a good hospital and a dispensary. In addition, the students should have had a good college education with proper exposure to the premedical school sciences. Medical schools could not be commercial enterprises.

Although the extinct institutions would not have met present-day standards by far, Corner neatly sums

- **Thomas Emerson Bond,** another of the founders and professor of materia medica at the new college, also had an illustrious career. He was professor of theory and practice of medicine at the Washington Medical College during its first period and present for a time during its reincarnation. He headed the faculty in 1832–1833, was president of the board of trustees of the Baltimore College of Dental Surgery, and was pastor of a local Methodist Episcopal church simultaneously.
- **Ennals Martin,** one of the founders of Med Chi, started his medical career as a pupil of Dr. William Shippen in Philadelphia. He received a bachelor of medicine degree from the University of Pennsylvania in 1782. Living in Easton and later in Baltimore, he was president of Med Chi from 1815 to 1820.
- **Ephraim McDowell** entered the office of Dr. Alexander Humphreys as a medical student and then attended lectures in Edinburgh in 1793 and 1794. Back in America, he settled and practiced in Danville, Kentucky. He was an adept lithotomist. In 1809, he performed the first oophorectomy in the United States without anesthesia or asepsis.
- **William G. Regester, M.D.,** graduated from the Washington University, Baltimore, in 1869, and practiced in Baltimore. He was the recording secretary of Med Chi from 1873 to 1882, vaccine physician from 1874 to 1875, state vaccine agent from 1876 to 1882, and attending physician at the Hebrew Orphan Asylum in Baltimore. He was awarded the degree of doctor of medicine, ad eundem, by the University of Maryland in 1880.

The Johns Hopkins University School of Medicine has awarded only two honorary degrees in medicine. William B. Kouwenhoven, who had been an investigator, teacher, department chairperson, and dean in the department of engineering, retired in 1954. He then embraced a second career and pioneered in the discipline of biomedical engineering. His studies on the effect of electricity on the human heart led to revolutionary changes in cardiopulmonary resuscitation. Hopkins awarded him an honorary degree of doctor of medicine in 1969.[21]

Ralph E. Gibson was a member and later director of Hopkins' Applied Physics Laboratory. After becoming director emeritus there in 1969, he became a professor of biomedical engineering at the medical school. In recognition of his orderly and analytic talents in organizing many of the hospital activities, Hopkins awarded him an honorary medical degree in 1972.[22]

up their existence: "The evil done by the worst of the extinct schools has long since ended; the good done by the best of them should not be forgotten."[18]

Joseph M. Miller, M.D.
Dr. Miller is a retired surgeon in Timonium, Maryland.

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Med Chi vs. the Thomsonians: a legislative vignette

The legislative act that established the Medical and Chirurgical Faculty of Maryland charged it with preventing the citizens of Maryland "from risking their lives in the hands of ignorant practitioners or pretenders to the healing art."[1] To carry out that charge, Med Chi established a board of examiners system that appointed censors for the Eastern and Western Shores. The censors evaluated credentials presented for licensure and collected a ten-dollar licensing fee. The system worked without opposition until the 1830s when the Thomsonians, a group of nontraditional, botanical practitioners, began to lobby for the repeal of licensing laws.

The Thomsonians were followers of Samuel Thomson (1769-1843), a self-trained practitioner who based his treatment on the healing powers of heat and plants. Thomson's early life made him suspicious of physicians; he believed they killed his mother in 1790 when she developed "galloping consumption" after the measles. Seven physicians, according to him, were unable to heal his wife after childbirth; he consulted two "root doctors" who cured her.[2]

Thomson outlined his principles in *New Guide to Health*, first published in 1822 (a copy of the 1834 edition is in the history of medicine collection at Med Chi). "Heat, I found, was life; and Cold, death. Our life depends on heat; food is the fuel that kindles and continues that heat."[3] According to Thompson, the proper working of the stomach ensures that the body receives the proper amount of heat. If the stomach becomes clogged, disease results. Based on this theory, Thomson made liberal use of the emetic Lobelia to treat his patients.[3] Lobelia, Thomson believed, cleansed the stomach, overpowered the cold, and promoted sweating. Steam and hot baths were prescribed when necessary to guarantee the restoration of heat.[3]

Thomson began to advertise his system in 1811. Twenty dollars bought instruction in his techniques and membership in the "Friendly Botanic Society." He organized a system of agents, mostly throughout the west and south, and by 1839, claimed to have sold 100,000 rights to his system.[2]

In 1832, the Thomsonians held their first convention in Columbus, Ohio. They discussed botanical medicine and how to control the outbreak of Asiatic cholera, and called for the repeal of licensing legislation. By the mid 1840s, most laws regulating the practice of medicine had been repealed.[2]

Thomson's timing in challenging the medical profession was perfect. Physicians' dependence on bleeding and mineral-based medications often hurt more patients than they helped. Although more physicians were receiving their training in established medical schools, the apprenticeship system still existed. Licensing and evaluation systems like that in Maryland were only just developing, and in rural areas, difficult to enforce. Finally, the national focus on less government and more personal responsibility reached its height with the election of Andrew Jackson in 1828. These events, combined with the Asiatic cholera outbreak in 1832, which conventional medicine could not cure, took its toll on organized medicine.[4]

In Maryland, the Act of 1838, Chapter 281, had the effect of deregulating the practice of medicine. Entitled "An act to authorize the Thomsonians or Botanic Physicians to charge and receive compensation for their services and medicine," it read as follows:

> Be it enacted by the General Assembly of Maryland, that from and thereafter the passage of this act, it may and shall be lawful for each and every person, being a citizen of this State, to charge and receive compensation for their services and medicines, in the same manner as physicians are now permitted to do.[5]

Although this act did not specifically repeal the Act of 1798, its effect was as far-reaching as if it had. In 1844, Dr. S. M. Perkins of Easton wrote to Robert Aloysius Durkee, Secretary of Med Chi, inquiring

> Who are the censors of this county? Two gentlemen are now practicing without a state license. Is this deemed indispensable as heretofore previous to the licensing of *Thompsonians* [sic]? Does *this law* abrogate or annul the more ancient act? What is the judicial opinion touching this matter? Be good enough, my dear Sir, to enlighten me upon this point at your leisure.[6]

Nothing in the Med Chi archives indicates that these questions were ever answered. Indeed, in summarizing the events of the 1830s and 1840s, Eugene Cordell points out that no one from Med Chi attended the legislative session when this law was passed, and Med Chi did not try to test its validity in the courts.[7] Medicine remained largely unregulated until the Act of 1888, Chapter 429, which established qualifications for the practice of medicine and a system for licensing physicians.

Margaret Burri, M.A.
Ms. Burri is the administrator/archivist of the Med Chi library.

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Med-Chi in Annapolis: a different view of how Maryland physicians help the state. . .for free!

"The Log Book shows the complaints begin as the tension grows and closing time draws near," reported first aid room Nurse Mrs. Ferol Giglio at the close of the 1964 session of the Maryland General Assembly. The observation remains true. January 1996 marks Med Chi's 33rd continuous year of providing first aid services during the legislative sessions of the General Assembly in Annapolis. The medical aid room, located in the State House, provides emergency and first aid services at no cost to the members of the legislature, state employees, and the public. The facility was begun in March 1963, through a cooperative effort of the Anne Arundel County Medical Society, the county health department, and Med Chi. The cost of maintaining and staffing the service has been underwritten by Med Chi since that time.

In the beginning, nurses were assigned to the first aid room from the Anne Arundel County Health Department, with Med Chi reimbursing the health department for these services. Anne Arundel General Hospital provided equipment and supplies, and physicians from the Anne Arundel County Medical Society agreed to serve as "on-call" consultants. Arrangements were made with the local ambulance companies to transport patients to the hospital if necessary. J. Howard Beard, M.D., Anne Arundel County health officer, and Manning W. Alden, M.D., president of both the Anne Arundel County Medical Society and the board of Medical Mutual Liability Insurance Society, were instrumental in establishing the service. Dr. Beard secured the nursing personnel and Dr. Alden signed up physicians and secured the assistance of the hospital. At the end of the first year of operation, Dr. Beard reported to the late M. McKendree Boyer, M.D., then-president of Med Chi, that the nurse and a physician responded to a "cardiac episode" suffered by an unnamed delegate. The nurses' report for 1963 documents several "headaches and gastrointestinal problems."

After the 1964 session, it was clear that members of the legislature appreciated the new service. Letters from then-Speaker of the Maryland House of Delegates Marvin Mandel and then-President of the Senate William S. James, to B. Martine Middleton, M.D., Med Chi legislative chairperson, expressed the appreciation of the members of the General Assembly and indicated a desire for the service to continue. Senator James' letter stated, "Many senators and representatives have indicated their appreciation for the security afforded them in having medical assistance so readily available." Resolutions of appreciation were adopted in both houses. House Resolution 59 of March 2, 1964 states, in part:

WHEREAS, the vicissitudes of the legislative life produce many strange results, and

WHEREAS, the stresses and strains exerted by the Chief Executive of the State, the various legislative agents, their many constituents and other interested parties may cause, contribute to and exacerbate wounds, not only mental, but also physical, and

WHEREAS, the care and, hopefully, the cure, of the physical ailments can be assisted by approved medical methods and technology, and

WHEREAS, the medical center located in the State House has been of great assistance during the current legislative term, now, therefore, be it

RESOLVED by the House of Delegates of Maryland that the appreciation of this body be and it is hereby extended to the Medical and Chirurgical Faculty of Maryland, the Anne Arundel County Medical Society and the Anne Arundel General Hospital...."

Dr. Beard's report to Med Chi at the close of the 1965 session includes the following information: "Legislative duty came to a close without any grave emergency....The beginning of the session saw a large number of people with a lot of headaches. Dietary problems were discussed frequently. Close checks were

made on several people suffering with high blood pressure. A total of 208 patients were seen during the 70-day session...."

By 1968, after five successful years, the winds of change were in the air. At its annual meeting in May 1968, the Maryland Academy of General Practice (later the Maryland Academy of Family Physicians) voted "to provide a physician-a-day to be present in the State House when the Legislature is in session." Thus began a practice that still continues. Leon W. Berube, M.D., president of the Maryland Academy that year, helped recruit physicians to serve. By January 1969, Warren R. Lesch, M.D., was also helping recruit physicians for the project. On-site physician coverage began in February 1968, and many of those who made up the "freshman" group of physicians-of-the-day have returned each year. During the 1979 session of the General Assembly, the following eight physicians who worked in the first aid room in 1969 were on duty once again: Thomas Herbert, M.D., of Ellicott City; C. Earl Hill, M.D., of Pasadena; J. Nelson McKay, M.D., of Baltimore; Daniel Welliver, M.D., of Westminster; Eugene Guazzo, M.D., J. Roy Guyther, M.D., and Leon Berube, M.D., all of Mechanicsville; and Robert Thibadeau, M.D., of Rockville. Drs. Hill and Guyther were on duty during the 1995 session.

Equipment in the room has become more sophisticated over the years as well. A 1969 letter from Dr. Guazzo suggested that a privacy screen for use when examining a patient would be useful. By 1979, equipment included not only the privacy screen, but a stretcher, wheelchair, ophthalmoscope, reflex hammer, an ear tuner, and digital thermometer.

Free parking is now provided for the physician-of-the-day, but early instructions to those preparing to serve in Annapolis tell physicians to "Bring... nickels and be prepared to feed the meters."

Nurses have always been an important part of the first aid room, providing continuous coverage each day and night during the legislative session. Many competent and enthusiastic women have worked in this capacity over the years, including Eugenia Price, wife of former Delegate George Price. Since 1973, Rose Argiro has been on duty as the day nurse, and Carolyn McCoy was on the night shift from 1974 to 1984. Ms. McCoy has provided full coverage since 1984. She has administered massive doses of TLC along with recording thousands of blood pressures, giving hundreds of allergy shots, and distributing the usual remedies for the aches and pains epidemic in legislative sessions.

Carolyn McCoy, R.N., feels that the first aid room should be a "home away from home" for the legislators. To this end, she has added plants and artwork on the walls. The artwork was carefully chosen to represent every part of the state. She says it "should be a room that welcomes everybody who has any kind of medical need, or psychological need, too." She sees herself as a combination of nurse, mother, sister, and confidant, not just someone to hand out pills. She feels that the TLC dispensed in the first aid room has helped the image of doctors in Maryland. Legislators, staff, and visitors have a place to be taken care of when they are away from home and sick.

Although injuries and illnesses over the years have generally been minor in nature, many times the health personnel on duty made a difference. Marble steps in the State House seem to be particularly hazardous—with countless lobbyists, tourists, and legislators stumbling, falling, and slipping on the slick treads— but the most severe bruises from these incidents fortunately seem to have been to pride rather than body.

Several members of the legislature have had sudden heart-related problems. A newspaper account of April 18, 1971, described the efforts of physician delegates Drs. Torrey C. Brown (D., Balto. City) and Aris T. Allen (R., Anne Arundel County) to revive their stricken colleague, Delegate Russell Hickman of Worcester County. The physicians administered closed-chest heart massage and mouth-to-mouth resuscitation. A House Resolution of Appreciation records that Dr. William Stewart also was present and participated in the emergency treatment. Delegate Hickman survived the episode.

In recent years there have been two cardiac arrests handled by the first aid room staff. One person died instantly, the other was resuscitated and taken to The

Johns Hopkins Hospital, where he later died. One staff member suffered a ruptured ectopic pregnancy; she was sent to the hospital and recovered. Another example of the efficiency of the first aid room staff involved a visitor from Frederick who fell and broke her arm. She went to the hospital, had a cast applied, and was on the bus to return home in the afternoon. Children who arrive by bus feeling sick may spend the day in the first aid room being taken care of by the nurse. Often it is too far for a parent to come to get the child, so they are made comfortable until time for the trip home.

The first aid room opened once again on January 10, 1996, the first day of the legislative session, and will continue until the last vote is taken on April 8. Cooperation has been the basis for the success of this operation. Physicians, nurses, the Anne Arundel General Hospital and County Health Department, the Maryland Academy of Family Physicians, and Med Chi have played a role in offering emergency and first aid care to all who need it during the legislative sessions without cost to the patient.

Senator James Clark, Jr., president of the Maryland State Senate, summarized the attitude of the legislators in a letter dated Aug. 29, 1979: "We have been most grateful for the services you have provided in the past and would certainly appreciate your help for the upcoming Session."

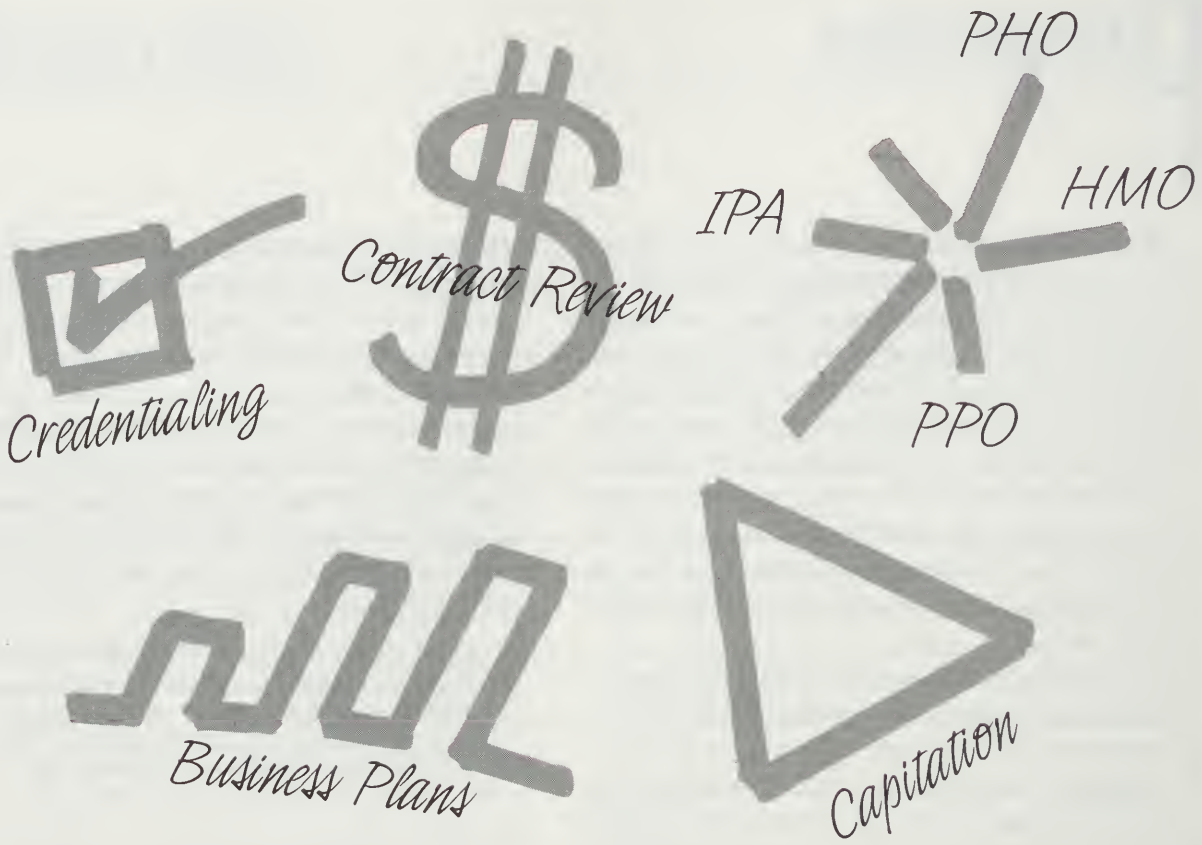
Adapted by Joyce Yensen, M.A., Med Chi legal assistant, from an article originally published in the January 1980 issue of *Maryland State Medical Journal* (29[1]:45-48) by Elza Davis, then Med Chi communications director and editor of the Med Chi legislative newsletter. ■

SEROTONIN SYNDROME

First described in humans in 1982, the serotonin syndrome is a toxic state due to increased serotonergic activity manifested by neuromuscular symptoms (restlessness, tremor, rigidity, head-shaking, unsteady gait), elevated temperature, hyperreflexia, myoclonic responses, cardiac arrhythmia, and collapse. Serious complications include disseminated intravascular coagulation, acute myoglobinuric renal failure, and death. The syndrome may result from concurrent use of two or more drugs that increase the availability of serotonin in the central nervous system. Symptoms usually occur within two hours after the first dose of the preciptitating agent and usually respond to drug discontinuation and supportive therapy. In some cases, however, treatment with cyproheptadine (Periactin), methysergide (Sansert), and/or propranolol (Inderal) may be needed. Drug combinations implicated in the serotonin syndrome include:

- amitriptyline (Elavil) + phenelzine (Nardil)
- amitriptyline + tranylcypromine (Parnate)
- bromocriptine (Parolodel) + levodopa/carbidopa (Sinemet)
- buspirone (Buspar) + fluoxetine (Prozac)
- buspirone + trazodone (Desyrel)
- dextromethorphan (Benylin) + phenelzine
- imipramine (Tofranil) + isocarboxazid (Marplan)
- fluoxetine + phenelzine
- fluoxetine + tranylcypromine
- fluoxetine + trazodone
- meperidine (Demerol) + isocarboxazid
- pentazocine (Talwin) + phenelzine
- phenelzine + trazodone
- sertraline (Zoloft) + tranylcypromine

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Mr. Troisi is chief executive officer of the Medical and Chirurgical Faculty of Maryland.

THIS YEAR'S SESSION OF THE MARYLAND GENERAL ASSEMBLY, WHICH CONVENED ON JANUARY 10, 1996, promises to be an interesting one for Maryland physicians and their patients. Some of the health-care related issues expected to come before the legislature this session include:

- ***community health networks*** — After several months of meetings and hearings, a governor's task force has issued recommendations on regulating these networks of health care providers which assume financial risk for patient care. One of the task force's recommendations was that these networks be regulated by the state health department, rather than the insurance commission. The insurance commission would have oversight as to whether these networks meet solvency requirements and comply with the small group reform law passed as part of HB1359. Some insurers have already gone on record as opposing lower solvency requirements for these networks. The governor is expected to use some of the task force's recommendations as a basis for legislation on community health networks.

- ***HCACC database*** — One of the mandates of HB1359 was that the Health Care Access and Cost Commission establish and maintain a database on patient encounters throughout the state. The database is supposed to provide information that could be used to make future health policy decisions. However, concerns about cost and patient confidentiality, as well as opposition from health care providers, the HMO industry, and the public may force the legislature to reexamine the need for this data collection.

- ***regulatory relief for BlueCross BlueShield of Maryland (BCBSM)*** — Recent newspaper reports indicate that BCBSM will seek the removal of regulations that require it to have approval of the Maryland Insurance Commission before changing reimbursement rates for providers.

- ***Medicaid*** — The uncertainty over the federal budget has caused uncertainty over how the state's Medicaid program will be administered. Perhaps the only thing that can be predicted with any certainty is that declining federal funds and decreased tax revenues may force the state to reduce its spending on Medicaid, or to develop other methods to improve this program. Med Chi will need input from our members on how you feel this program can be improved.

How the legislature deals with these and other health care issues that arise during the session will impact the medical profession and health care delivery in the state. As always, Med Chi will continuously monitor developments in the legislature that affect our members and their patients. We will update our members on these issues by sending faxes and our weekly newsletter, *Legislative Action*, to our component societies, legislative committee members, and any member who has an interest in specific legislative issues. Members can also get legislative updates by calling Med Chi's 24-hour automated hotline or our legislative office in Annapolis. We hope that you will help us address your concerns during this session by working with the Legislative Committee and Med Chi's leadership on issues important to you and your patients.

A directory of Maryland legislators, as well as important legislative dates follows. Med Chi provides this information to enable you to contact your representatives on important issues. Remember, your involvement in the legislative process ensures that your patients' and the profession's voices are heard. Please help us shape the health care system in Maryland.

Med Chi's 1996 Maryland state legislative directory

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FOR FURTHER INFORMATION, *contact the*
DEPARTMENT OF LEGISLATIVE REFERENCE

From the Baltimore area	841-3870
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The legislative process*

FROM HOPPER TO ENACTMENT

The drafting of legislation requires the skill of experienced and trained personnel. This service is rendered by the Department of Legislative Reference. A bill or joint resolution may be introduced in advance of regular sessions and is styled a "prefiled bill." A bill is filed (is dropped into the hopper) with the secretary of the Senate or the clerk of the House, is given a number, and is readied for its first reading on the floor. Bills may be introduced in either chamber until the last 35 days of the session. After that, bills may be introduced only with the consent of two-thirds of the membership.

First reading. The reading clerk, when the session has convened, reads the title, and the presiding officer assigns the bill to the appropriate committee.

Reference to committee. The committees meet daily during the session to receive testimony and take action on bills assigned. Citizens are encouraged to present their views on the subject matter by mail or by personal appearance. Legislative agents (lobbyists), representing organized interest groups, speak at these hearings, either to oppose or support the proposed legislation. The Department of Fiscal Services prepares a fiscal analysis for each bill, and these fiscal notes are considered during the committee deliberation.

Unfavorable committee action, which may mean legislative death, frequently requires as much, or more, committee discussion and time as favorable committee action, which sends the bill to the floor for a second reading and floor consideration.

Second reading and floor consideration. The bill is reported to the floor by the committee (favorably, unfavorably, or without recommendation, and with or without committee amendment). The bill is open to amendment from the floor, and the ultimate form of the bill must be determined on second reading. Committee action may be reversed, but this is infrequent.

Third reading. The bill must be printed for third reading with all amendments included in this final version. No amendments may be presented on third reading in the chamber of its origin, and the bill must be passed by a majority of the elected membership.

Second chamber. The procedure follows a pattern identical with that of the chamber in which the bill originated, except amendments may be proposed during third reading as well as second reading. If not amended in the second chamber, final passage may occur without reprinting.

** Information provided by the Maryland Department of Legislative Reference.*

Consideration of bills*

CONSIDERATION OF BILLS ORIGINATING IN ONE CHAMBER AND AMENDED IN SECOND CHAMBER

If amended in the second chamber, the bill is returned to the chamber of origin, where a vote is taken on a motion to concur with or reject the amendments. If concurrence is voted, the bill itself is voted on as amended and action is complete. The bill is reprinted, or enrolled, to include the added amendments, before submitting it to the governor.

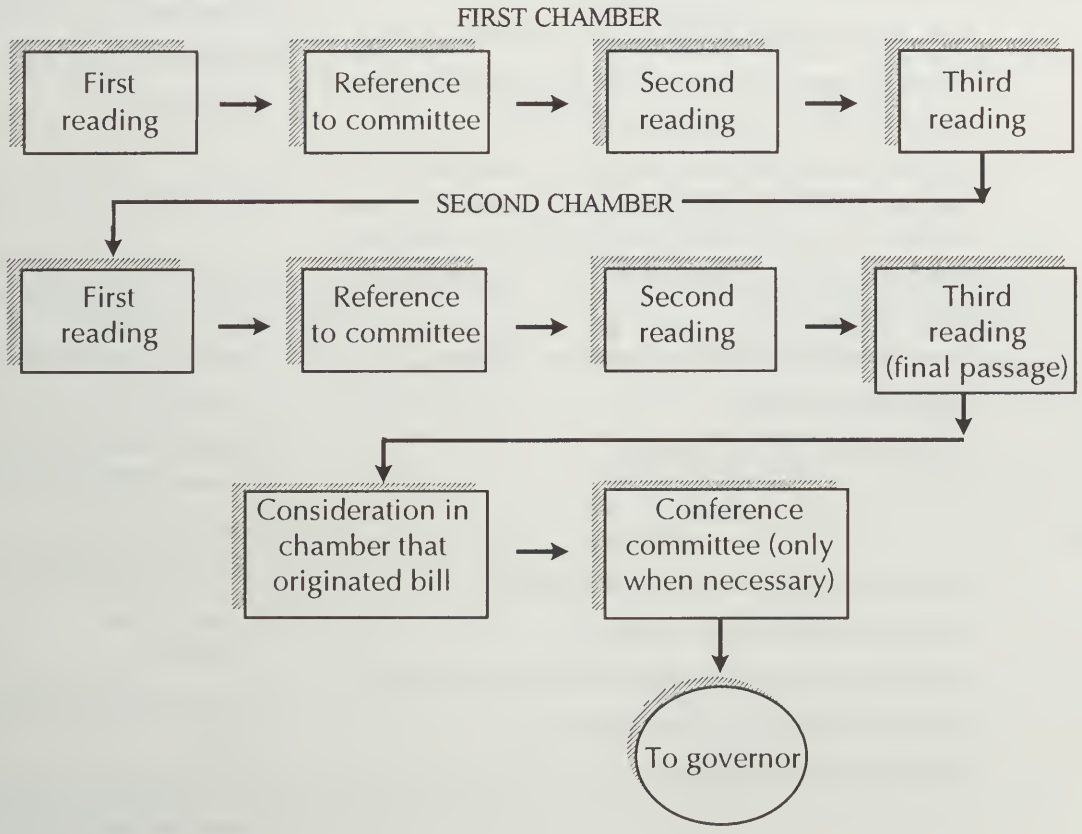
If the amendments are rejected, two courses of action are possible: 1) the amending chamber may be requested to withdraw its amendments, or 2) upon refusal of withdrawal of amendments, either chamber may request a conference committee to resolve the differences between the two chambers.

Conference committee. A report of a conference committee goes back to both chambers to be adopted or rejected without amendment. If the conference committee report is adopted, the bill is voted upon for final passage in each house. If the conference committee report is rejected by either house, the bill fails.

Presentation of bills to the governor. Presentation of all bills to the governor is mandatory, except for the budget bill and constitutional amendments. The budget bill becomes law upon its final passage and cannot be vetoed. Bills must be presented to the governor within 20 days following adjournment of a session, and in the case of such bills, the governor may veto them within 30 days after presentation to him or her. If a bill is not vetoed, it becomes a law. The governor may not veto a constitutional amendment.

The power to override a veto. This power rests with the legislature. If a bill is vetoed during regular session, the veto message is considered immediately. If a bill presented after the session is vetoed, the veto message must be considered at the next regular or special session of the legislature, except that the legislature may not override a veto during the first year of a new term. A three-fifths vote of the elected membership in each chamber is necessary to override a veto.

The progress of a bill*



** Information provided by the Maryland Department of Legislative Reference*

Important legislative dates

January 10 ..... General assembly convenes (noon, Wednesday).

January 17 ..... Governor delivers the State of the State Address. Final date for Governor to introduce Budget Bill.

TBA ..... Chief Judge delivers the State of the Judiciary Address.

January 19 ..... Final date for submission of executive orders reorganizing the executive branch of state government. (Either chamber may disapprove by resolution within 50 days. Administration bills introduced in the Senate after this date are referred to the Senate Rules Committee.)

January 23 ..... Senate bill and House bill request guarantee date.

January 29 ..... Final date for Governor to introduce capital budget bill.

February 2 ..... Senate and House bill introduction date. (Senate bills introduced after this date are referred to the Senate Rules Committee.) House bill introduction courtesy date.

February 18 ..... "Green Bag" appointments submitted by Governor--delivered on February 16.

February 23 ..... House bills introduced after this date are referred to the House Rules Committee.

March 4 ..... Final date for introduction of bills without suspension of rules.

March 19 ..... Committee reporting courtesy date. (Each chamber's committees should report out its own bills by this date.)

March 25 ..... Opposite chamber bill crossover date. (Each chamber should send to the other chamber those bills it intends to pass favorably. Opposite chamber bills received after this date are subject to referral to the rules committee.) Senate Rule 32 (c), House Courtesy Date.

April 1 ..... Budget bill to be passed by both chambers by this date.

April 8 ..... Adjournment "Sine die."

May 8 ..... Final date for an extended session.

POST-SESSION

April 28 ..... Final date for presentment of bills to the governor.

May 28 ..... Governor to sign/veto bills by this date.

June 1 ..... Other than emergency bills, earliest date for bills to take effect.

July 1 ..... Budget, tax, and revenue bills to take effect.

October 1 ..... Usual effective date for bills.

Important telephone numbers

- Legislative information and library ..... ext. 3810
- Information desk, State House ..... ext. 3886
- President of Senate ..... ext. 3700
  Thomas V. 'Mike' Miller, Jr.
- Senate majority leader ..... ext. 3697
  Clarence W. Blount
- Senate minority leader ..... ext. 3568
  John A. Cade
- Senate Budget and Taxation Committee ..... ext. 3690
- Senate Economic and Environmental Affairs Committee ..... ext. 3661
- Senate Finance Committee ..... ext. 3677
- Senate Judicial Proceedings Committee ..... ext. 3623
- Speaker of the House of Delegates ..... ext. 3800
  Casper R. Taylor, Jr.
- House majority leader ..... ext. 3464
  John Adams Hurson
- House minority leader ..... ext. 3401
  Robert H. Kittleman
- House Committee on Appropriations ..... ext. 3407
- House Committee on Economic Matters ..... ext. 3519
- House Committee on Environmental Matters ..... ext. 3534
- House Judiciary Committee ..... ext. 3488
- House Committee on Ways and Means ..... ext. 3469
- Bill room (copies of bills, amendments, and fiscal notes) .... ext. 3840

Senate standing committees

Budget and Taxation

Room 100, Senate Office Building
Annapolis, MD 21401-1991
Telephone ext.—3690

- **Chairperson**
  Barbara A. Hoffman, Baltimore City (42)
- **Vice chairperson**
  William V. Amoss, Cecil and Howard counties (35)
- **Members**
  F. Vernon Boozer, Baltimore County (9)
  John A. Cade, Anne Arundel County (33)
  Ulysses Currie, Prince George's County (25)
  Patrick J. Hogan, Montgomery County (39)
  Edward J. Kasemeyer, Baltimore and Howard counties (12)
  Gloria Lawlah, Prince George's County (26)
  Nathaniel J. McFadden, Baltimore City (45)
  Thomas M. Middleton, Charles County (28)
  Donald F. Munson, Washington County (2)
  Ida G. Ruben, Montgomery County (20)
  Christopher Van Hollen, Montgomery County (18)

The Budget and Taxation Committee considers legislation that relates to state operating and capital budgets, including revenues and expenditures; supplementary appropriations; state and county bond authorizations; legislative budgetary procedures; taxation and assessments; education financing and pension or retirement matters.

Economic and Environmental Affairs

Room 200, Senate Office Building
Annapolis, MD 21401-1991
Telephone ext.—3661

- **Chairperson**
  Clarence W. Blount, Baltimore City (41)
- **Vice chairperson**
  Paula C. Hollinger, Baltimore County (11)
- **Members**
  Michael J. Collins, Baltimore County (6)
  David R. Craig, Harford County (34)
  Roy Dyson, Calvert and St. Mary's counties (29)
  Brian E. Frosh, Montgomery County (16)
  Christopher J. McCabe, Howard and Montgomery counties (14)
  Paul G. Pinsky, Prince George's County (22)
  Perry Sfikas, Baltimore City and Baltimore County (46)
  J. Lowell Stoltzfus, Somerset, Worcester and Wicomico counties (38)
  Leonard H. Teitelbaum, Montgomery County (19)

The Economic and Environmental Affairs Committee considers legislation that relates to licensing and regulation of businesses and labor; alcoholic beverages; natural resources; agriculture and land preservation; the environment; energy; election laws; veterans affairs; fire prevention; education programs; procurement; local and government affairs; and state and government organizations, procedures and administrative law.

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

Finance

Presidential Wing, Senate Office Building
Annapolis, MD 21401-1991
Telephone ext.—3677

- **Chairperson**
  Thomas L. Bromwell, Baltimore County and Baltimore City (8)
- **Vice chairperson**
  Arthur Dorman, Prince George's County (21)
- **Members**
  John C. Astle, Anne Arundel County (30)
  George W. Della, Jr., Baltimore City (47)
  John W. Derr, Frederick and Washington counties (3)
  John J. Hafer, Allegany and Garrett counties (1)
  Martin G. Madden, Howard and Prince George's counties (13)
  John A. Pica, Jr., Baltimore City (43)
  Jean W. Roesser, Montgomery County (15)
  Decatur W. Trotter, Prince George's County (24)
  Larry Young, Baltimore City (44)

The Finance Committee considers legislation that relates to health and welfare matters; insurance; credit regulation and consumer financing; state personnel issues; economic and community development; social programs; worker's compensation; racing and lotteries; banking and financial institutions; transportation; unemployment insurance; labor and employment; and utility regulations.

Judicial Proceedings

Room 300, Senate Office Building
Annapolis, MD 21401-1991
Telephone ext.—3623

- **Chairperson**
  Walter M. Baker, Caroline, Cecil, Kent, Queen Anne's and Talbot counties (36)
- **Vice Chairperson**
  Leo E. Green, Prince George's County (23)
- **Members**
  Richard F. Colburn, Dorchester, Caroline, Talbot, and Wicomico counties (37)
  Timothy R. Ferguson, Frederick and Carroll counties (4)
  Jennie M. Forehand, Montgomery County (17)
  Larry E. Haines, Carroll County (5)
  Ralph M. Hughes, Baltimore City (40)
  Philip C. Jimeno, Anne Arundel County (31)
  Delores G. Kelley, Baltimore County and Baltimore City (10)
  C. Edward Middlebrooks, Anne Arundel County (32)
  Norman R. Stone, Jr., Baltimore County (7)

The Judicial Proceedings Committee considers legislation that relates to judicial administration and court structure; constitutional amendments; legal profession; criminal and civil laws, penalties, and procedures; legal rights and immunities; corrections; juvenile justice; family law; ethics; commercial code; real property; landlord/tenant laws; trusts and estates; public safety; law enforcement organizations; equal rights and opportunities; and vehicle laws.

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

House standing committees

Appropriations

Room 130, House Office Building
Annapolis, MD 21401-1991
Telephone ext.—3407

- **Chairperson**
  Howard P. Rawlings, Baltimore City (40)
- **Vice chairperson**
  Norman H. Conway, Somerset, Worcester and Wicomico counties (38)
- **Members**
  Wheeler R. Baker, Kent, Queen Anne's, Cecil, Caroline, and Talbot counties (36)
  Robert C. Baldwin, Anne Arundel County (33)
  Talmadge Branch, Baltimore City (45)
  Joan Cadden, Anne Arundel County (31)
  Thomas E. Dewberry, Baltimore County (47B)
  Richard N. Dixon, Carroll County (5)
  George C. Edwards, Allegany and Garrett counties (1A)
  Robert L. Flanagan, Howard and Montgomery counties (14B)
  Peter Franchot, Montgomery County (20)
  Donald C. Fry, Harford County (35A)
  Sue Hecht, Washington and Frederick counties (3)
  Kenneth Holt, Baltimore County (6)
  Brenda B. Hughes, Prince Georges County (25)
  John Adams Hurson, Montgomery County (18)
  Martha S. Klima, Baltimore County (9A)
  Nancy K. Kopp, Montgomery County (16)
  Richard LaVay, Montgomery County (15)
  Maggie McIntosh, Baltimore City (42)
  Richard A. Palumbo, Prince George's County (22A)
  Joan N. Parker, Baltimore County (10)
  Joan B. Pitkin, Prince George's County(23)
  James E. Proctor, Jr., Prince George's County (27A)
  Samuel I. Rosenberg, Baltimore City (42)
  John Frank Slade, III, Calvert and St. Mary's counties (29B)
  Nancy R. Stocksdale, Carroll County (5)

The Appropriations Committee considers legislation that relates to state operating and capital budgets; supplementary appropriations bills; state and county bonds and loans; higher education; collective bargaining; fiscal procedures; medical assistance; social services; and state personnel and pension matters.

Commerce and Governmental Matters

Room 140, House Office Building
Annapolis, MD 21401-1991
Telephone ext.—3502

- **Chairperson**
  Gerald J. Curran, Baltimore City (43)
- **Vice chairperson**
  John F. Wood, Jr., Calvert and St. Mary's counties (29A)
- **Members**
  John S. Arnick, Baltimore County (7)
  Joanne C. Benson, Prince George's County (24)
  Elizabeth Bobo, Baltimore and Howard counties (12B)
  David R. Brinkley, Frederick and Carroll counties (4A)
  Virginia P. Clagett, Anne Arundel County (30)
  Mary A. Conroy, Prince George's County (23)
  Diane DeCarlo, Baltimore County (6)
  Cornell N. Dypski, Baltimore City (46)
  Patricia Anne Faulkner, Montgomery County(14A)
  Joseph M. Getty, Carroll County (5)
  Cheryl C. Kagan, Montgomery County (17)
  Robert H. Kittleman, Montgomery and Howard counties (14B)
  James E. Malone, Jr., Baltimore and Howard counties (12A)
  Adriene A. Mandel, Montgomery County (19)
  Joseph Minnick, Baltimore County (7)
  John S. Morgan, Howard and Prince George's counties (13B)
  Nathaniel T. Oaks, Baltimore City and Baltimore County (41)
  Obie Patterson, Prince George's County (26)
  D. Bruce Poole, Washington County (2B)
  David D. Rudolph, Harford and Cecil counties (35B)
  Louise V. Snodgrass, Washington and Frederick counties (3)

The Commerce and Governmental Matters Committee considers legislation that relates to banking; credit unions; savings and loans; ethics; minority business enterprises; election laws; procurement; local and governmental affairs; transportation and vehicle laws.

Economic Matters

Room 150, House Office Building
Annapolis, MD 21401-1991
Telephone ext.—3519

- **Chairperson**
  Michael Erin Busch, Anne Arundel County (30)
- **Vice chairperson**
  Michael R. Gordon, Montgomery County (17)
- **Members**
  Kumar P. Barve, Montgomery County (17)
  Frank D. Boston, Jr., Baltimore City and Baltimore County (41)
  Michael A. Crumlin, Prince George's County(25)
  Elijah E. Cummings, Baltimore City (44)
  John P. Donoghue, Washington County (2C)
  Adelaid C. Ekardt, Dorchester, Caroline, Talbot, and Wicomico counties (37B)
  Nathaniel Exum, Prince George's County (24)
  Robert L. Frank, Baltimore County (11)
  Marilyn Goldwater, Montgomery County (16)
  Hattie N. Harrison, Baltimore City (45)
  A. Wade Kach, Baltimore County (9A)
  James M. Kelly, Baltimore County (9B)
  Ruth M. Kirk, Baltimore City (44)
  Carolyn J. Krysiak, Baltimore City (46)
  Mary Ann Love, Anne Arundel County (32)
  Charles A. McClenahan, Somerset, Wicomico, and Worcester counties (38)
  Van T. Mitchell, Charles County (28)
  Matthew Mossburg, Montgomery County (39)
  Shane Pendergrass, Howard and Prince George's counties (13A)
  Victoria L. Schade, Anne Arundel County (31)
  Mary Roe Walkup,-Kent, Queen Anne's, Cecil, Caroline, and Talbot counties (36)

The Economic Matters Committee considers legislation relating to licensing and regulation of businesses and labor; commercial law; labor and employment; economic development; insurance regulation; unemployment insurance; consumer protection; real estate and real property transactions; and alcoholic beverages.

Environmental Matters

Room 160, House Office Building
Annapolis, MD 21401-1991
Telephone ext.—3534

- **Chairperson**
  Ronald A. Guns, Caroline, Cecil, Kent, Queen Anne's, and Talbot counties (36)
- **Vice chairperson**
  Michael H. Weir, Baltimore and Harford counties (6)
- **Members**
  Leon G. Billings, Montgomery County (18)
  Barrie S. Ciliberti, Montgomery County (39)
  Dereck Davis, Prince George's County (25)
  Donald B. Elliott, Carroll and Howard counties (4)
  Barbara Frush, Prince George's County (21)
  Tony E. Fulton, Baltimore City (40)
  Peter A. Hammen, Baltimore City and Baltimore County (46)
  James W. Hubbard, Prince George's County (23)
  Don B. Hughes, Dorchester, Caroline, Talbot, and Wicomico counties (37A)
  Katherine Klausmeier, Baltimore County and Baltimore City (8)
  Brian K. McHale, Baltimore City (47A)
  Jacob J. Morhorovic, Jr., Baltimore County (7)
  Dan K. Morhaim, Baltimore County (11)
  Margaret H. Murphy, Baltimore City (41)
  Shirley Nathan-Pulliam, Baltimore County and Baltimore City (10)
  George W. Owings, III, Prince George's, Anne Arundel and Calvert counties (27B)
  Alfred W. Redmer, Jr., Baltimore County (8)
  Kenneth D. Schisler, Caroline, Dorchester, Talbot, and Wicomico counties (37B)
  Paul S. Stull, Frederick and Carroll counties (4A)
  J. Anita Stup, Frederick and Washington counties (3)

The Environmental Matters Committee considers legislation that relates to natural resources and the environment, including land use planning and zoning; health policy and planning; regulation of utilities governed by the Public Service Commission; and agriculture.

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Judiciary

Room 120, House Office Building
Annapolis, MD 21401-1991
Telephone ext.—3488

- **Chairperson**
  Joseph F. Vallario, Jr., Prince George's County (27A)
- **Vice chairperson**
  Ann Marie Doory, Baltimore City (43)
- **Members**
  Rushern L. Baker,III, Prince George's County (22B)
  Phillip D. Bissett, Anne Arundel County (30)
  Emmett C. Burns, Jr., Baltimore County and Baltimore City (10)
  Michael W. Burns, Anne Arundel County (32)
  Dana Lee Dembrow, Montgomery County (20)
  Gilbert J. Genn, Montgomery County (16)
  Sharon Grosfeld, Baltimore County and Baltimore City (18)
  James M. Harkins, Harford County (35A)
  Thomas E. Hutchins, Charles County (28)
  Nancy Jacobs, Harford County (34)
  Pauline H. Menes, Prince George's County (21)
  Kenneth C. Montague, Jr., Baltimore City (43)
  Donald E. Murphy, Baltimore and Howard counties (12A)
  Timothy D. Murphy, Baltimore City and Baltimore County (47A)
  Anthony J. O'Donnell, Calvert and St. Mary's counties (29)
  Marsha G. Perry, Anne Arundel County (33)
  Carol Stoker Petzold, Montgomery County (19)
  Mary Louise Preis, Harford County (34)
  Frank S. Turner, Howard and Prince George's counties (13A)
  David M. Valderrama, Prince George's County (26)

The Judiciary Committee considers legislation that relates to judicial administration and court structure; legal profession; criminal and civil laws and procedures; corrections; juvenile justice; family law; administrative law; trusts and estates; and drugged and drunk driving.

Ways and Means

Room 110, House Office Building
Annapolis, MD 21401-1991
Telephone ext.—3469

- **Chairperson**
  Sheila E. Hixson, Montgomery County (20)
- **Vice chairperson**
  James C. Rosapepe, Prince George's County (21)
- **Members**
  Raymond Beck, Montgomery County (39)
  Rose Mary Hatem Bonsack, Harford County (34)
  K. Bennett Bozman, Somerset, Worcester and Wicomico counties (38)
  James W. Campbell, Baltimore City (42)
  Jean Cryor, Montgomery County (15)
  Clarence Davis, Baltimore City (45)
  Michael J. Finifter, Baltimore County (11)
  Janet Greenip, Anne Arundel County (33)
  Anne Healey, Prince George's County (22A)
  Henry B. Heller, Montgomery County (19)
  Carolyn J.B. Howard, Prince George's County (24)
  John R. Leopold, Anne Arundel County (31)
  Samuel C. Linton, Charles County (28)
  Salima Siler Marriott, Baltimore City (40)
  Robert A. McKee, Washington County (2A)
  Clarence M. Mitchell, IV, Baltimore City (44)
  C. Anthony Muse, Prince George's County (26)
  James F. Ports, Jr., Baltimore County and Baltimore City (8)
  James E. Rzepkowski, Anne Arundel County (32)
  Mark K. Shriver, Montgomery County (15)
  Betty Workman, Allegany County (1B)

The Ways and Means Committee considers legislation that relates to state and local taxation, including property tax credit programs and assessments; education financing; primary and secondary education programs; funding of health, welfare and transportation programs; lottery and horse racing.

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

1996 Maryland General Assembly, by Legislative District

LEGISLATIVE DISTRICT 1
Garrett and Allegany counties
Sen. John J. Hafer
Del. George C. Edwards (1A)
Del. Betty Workman (1B)
Del. Casper Taylor, Jr. (1C)

LEGISLATIVE DISTRICT 2
Washington County
Sen. Donald F. Munson
Del. Robert A. McKee (2A)
Del. D. Bruce Poole (2B)
Del. John P. Donoghue (2C)

LEGISLATIVE DISTRICT 3
Washington and Frederick counties
Sen. John W. Derr
Del. Sue Hecht
Del. Louise V. Snodgrass
Del. J. Anita Stup

LEGISLATIVE DISTRICT 4
Frederick and Carroll counties
Sen. Timothy R. Ferguson
Del. David R. Brinkley (4A)
Del. Paul S. Stull (4A)
Del. Donald B. Elliott (4B)

LEGISLATIVE DISTRICT 5
Carroll County
Sen. Larry E. Haines
Del. Richard N. Dixon
Del. Joseph M. Getty
Del. Nancy R. Stocksdale

LEGISLATIVE DISTRICT 6
Baltimore and Harford counties
Sen. Michael J. Collins
Del. Diane DeCarlo
Del. Kenneth Holt
Del. Michael H. Weir

LEGISLATIVE DISTRICT 7
Baltimore County
Sen. Norman R. Stone, Jr.
Del. John S. Arnick
Del. Joseph Minnick
Del. Jacob J. Mohorovic, Jr.

LEGISLATIVE DISTRICT 8
Baltimore County and Baltimore City
Sen. Thomas L. Bromwell
Del. Katherine Klausmeier
Del. James F. Ports, Jr.
Del. Alfred W. Redmer, Jr.

LEGISLATIVE DISTRICT 9
Baltimore County
Sen. F. Vernon Boozer
Del. A. Wade Kach (9A)
Del. Martha S. Klima (9A)
Del. James M. Kelly (9B)

LEGISLATIVE DISTRICT 10
Baltimore County and Baltimore City
Sen. Delores G. Kelley
Del. Emmett C. Burns, Jr.
Del. Shirley Nathan-Pulliam
Del. Joan N. Parker

LEGISLATIVE DISTRICT 11
Baltimore County
Sen. Paula C. Hollinger
Del. Michael J. Finifter
Del. Robert L. Frank
Del. Dan K. Morhaim

LEGISLATIVE DISTRICT 12
Baltimore and Howard counties
Sen. Edward J. Kasemeyer
Del. James E. Malone, Jr. (12A)
Del. Donald E. Murphy (12 A)
Del. Elizabeth Bobo (12 B)

LEGISLATIVE DISTRICT 13
Howard and Prince George's counties
Sen. Martin G. Madden
Del. Shane Pendergrass (13A)
Del. Frank S. Turner (13A)
Del. John S. Morgan (13B)

LEGISLATIVE DISTRICT 14
Montgomery and Howard counties
Sen. Christopher J. McCabe
Del. Patricia Anne Faulkner (14A)
Del. Robert L. Flanagan (14B)
Del. Robert H. Kittleman (14B)

LEGISLATIVE DISTRICT 15
Montgomery County
Sen. Jean W. Roesser
Del. Jean Cryor
Del. Richard LaVay
Del. Mark K. Shriver

LEGISLATIVE DISTRICT 16
Montgomery County
Sen. Brian E. Frosh
Del. Gilbert J. Genn
Del. Marilyn Goldwater
Del. Nancy K. Kopp

LEGISLATIVE DISTRICT 17
Montgomery County
Sen. Jennie Forehand
Del. Kumar Barve
Del. Michael R. Gordon
Del. Cheryl C. Kagan

LEGISLATIVE DISTRICT 18
Montgomery County
Sen. Christopher Van Hollen, Jr.
Del. Leon G. Billings
Del. Sharon Grosfeld
Del. John Adams Hurson

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

MEMBERS BY LEGISLATIVE DISTRICT

LEGISLATIVE DISTRICT 19
Montgomery County
Sen. Leonard H. Teitelbaum
Del. Henry B. Heller
Del. Adriene A. Mandel
Del. Carol Stoker Petzold

LEGISLATIVE DISTRICT 20
Montgomery County
Sen. Ida G. Ruben
Del. Dana Lee Dembrow
Del. Peter Franchot
Del. Sheila Ellis Hixson

LEGISLATIVE DISTRICT 21
Prince George's County
Sen. Arthur Dorman
Del. Barbara Frush
Del. Pauline H. Menes
Del. James C. Rosapepe

LEGISLATIVE DISTRICT 22
Prince George's County
Sen. Paul G. Pinsky
Del. Anne Healey (22A)
Del. Richard A. Palumbo (22A)
Del. Rushern L. Baker, III (22B)

LEGISLATIVE DISTRICT 23
Prince George's County
Sen. Leo E. Green
Del. Mary A. Conroy
Del. James W. Hubbard
Del. Joan B. Pitkin

LEGISLATIVE DISTRICT 24
Prince George's County
Sen. Decatur W. Trotter
Del. Joanne C. Benson
Del. Nathaniel Exum
Del. Carolyn J.B. Howard

LEGISLATIVE DISTRICT 25
Prince George's County
Sen. Ulysses Currie
Del. Michael A. Crumlin
Del. Dereck Davis
Del. Brenda B. Hughes

LEGISLATIVE DISTRICT 26
Prince George's County
Sen. Gloria Gary Lawlah
Del. C. Anthony Muse
Del. Obie Patterson
Del. David M. Valderrama

LEGISLATIVE DISTRICT 27
Prince George's, Calvert, and Anne Arundel counties
Sen. Thomas V. 'Mike' Miller, Jr.
Del. James E. Proctor, Jr. (27A)
Del. Joseph F. Vallario, Jr. (27A)
Del. George W. Owings, III (27B)

LEGISLATIVE DISTRICT 28
Charles County
Sen. Thomas McLain Middleton
Del. Thomas E. Hutchins
Del. Samuel C. Linton
Del. Van T. Mitchell

LEGISLATIVE DISTRICT 29
Calvert and St. Mary's counties
Sen. Roy Dyson
Del. John F. Wood, Jr. (29A)
Del. John Frank Slade, III (29B)
Del. Anthony J. O'Donnell

LEGISLATIVE DISTRICT 30
Anne Arundel County
Sen. John C. Astle
Del. Phillip D. Bissett
Del. Michael Erin Busch
Del. Virginia P. Clagett

LEGISLATIVE DISTRICT 31
Anne Arundel County
Sen. Philip C. Jimeno
Del. Joan Cadden
Del. John R. Leopold
Del. Victoria L. Schade

LEGISLATIVE DISTRICT 32
Anne Arundel County
Sen. C. Edward Middlebrooks
Del. Michael W. Burns
Del. Mary Ann Love
Del. James E. Rzepkowski

LEGISLATIVE DISTRICT 33
Anne Arundel County
Sen. John A. Cade
Del. Robert C. Baldwin
Del. Janet Greenip
Del. Marsha G. Perry

LEGISLATIVE DISTRICT 34
Harford County
Sen. David R. Craig
Del. Rose Mary Hatem Bonsack
Del. Nancy Jacobs
Del. Mary Louise Preis

LEGISLATIVE DISTRICT 35
Harford and Cecil counties
Sen. William H. Amoss
Del. Donald C. Fry (35A)
Del. James M. Harkins (35A)
Del. David D. Rudolph (35B)

LEGISLATIVE DISTRICT 36
Kent, Queen Anne's, Cecil, Caroline, and Talbot counties
Sen. Walter M. Baker
Del. Wheeler R. Baker
Del. Ronald A. Guns
Del. Mary Roe Walkup

LEGISLATIVE DISTRICT 37
Dorchester, Caroline, Talbot, and Wicomico counties
Sen. Richard Colburn
Del. Don B. Hughes (37A)
Del. Adelaid C. Ekardt (37B)
Del. Kenneth D. Schisler (37B)

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LEGISLATIVE DISTRICT 38
Somerset, Worcester, and Wicomico counties
Sen. J. Lowell Stoltzfus
Del. K. Bennett Bozman
Del. Norman H. Conway
Del. Charles A. McClenahan

LEGISLATIVE DISTRICT 39
Montgomery County
Sen. Patrick J. Hogan
Del. Raymond Beck
Del. Barrie S. Ciliberti
Del. Mathew Mossburg

LEGISLATIVE DISTRICT 40
Baltimore City
Sen. Ralph M. Hughes
Del. Tony E. Fulton
Del. Salima Siler Marriott
Del. Howard P. Rawlings

LEGISLATIVE DISTRICT 41
Baltimore City and Baltimore County
Sen. Clarence W. Blount
Del. Frank D. Boston, Jr.
Del. Margaret H. Murphy
Del. Nathaniel T. Oaks

LEGISLATIVE DISTRICT 42
Baltimore City
Sen. Barbara A. Hoffman
Del. James W. Campbell
Del. Maggie McIntosh
Del. Samuel I. Rosenberg

LEGISLATIVE DISTRICT 43
Baltimore City
Sen. John A. Pica, Jr.
Del. Gerald J. Curran
Del. Ann Marie Doory
Del. Kenneth Charles Montague, Jr.

LEGISLATIVE DISTRICT 44
Baltimore City
Sen. Larry Young
Del. Elijah E. Cummings
Del. Ruth M. Kirk
Del. Clarence M. Mitchell, IV

LEGISLATIVE DISTRICT 45
Baltimore City
Sen. Nathaniel McFadden
Del. Talmadge Branch
Del. Clarence Davis
Del. Hattie N. Harrison

LEGISLATIVE DISTRICT 46
Baltimore City and Baltimore County
Sen. Perry Sfikas
Del. Cornell N. Dypski
Del. Peter A. Hammen
Del. Carolyn J. Krysiak

LEGISLATIVE DISTRICT 47
Baltimore City and Baltimore County
Sen. George W. Della, Jr.
Del. Brian K. McHale (47A)
Del. Timothy D. Murphy (47A)
Del. Thomas E. Dewberry (47B)

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

Members of the Senate, alphabetically with addresses

▼ **Amoss, William H.** *(Dist. 35)*
Session..... 131 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3603
District..... 2303 Bel Air Rd.
address .... P.O. Box 496
Fallston 21047-0496
410-838-7555
410-879-7272
Member
since ..... 1983 (House 1975-1982)

▼ **Astle, John C.** *(Dist. 30)*
Session..... PW Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3578
District..... PW Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3578
Member
since ..... 1995 (House 1983-1994)

♦ **Baker, Walter M.** *(Dist. 36)*
Session..... 301 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3639
District..... 153 East Main St.
address .... Elkton 21921-5975
410-398-0980
Member
since 1979

▼ **Blount, Clarence W.** *(Dist. 41)*
Session..... 201 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3697
District..... 201 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3967
Member
since 1971

▼ **Boozer, F. Vernon** *(Dist. 9)*
Session..... 410 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3706
District..... 614 Bosley Ave.
address .... Towson 21204-4066
410-828-0669
Member
since ..... 1981 (House 1971-1979)

▼ **Bromwell, Thomas L.** *(Dist. 8)*
Session..... PW Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3620
District..... PW Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3620
Member
since ..... 1983 (House 1979-1983)

▼ **Cade, John A.** *(Dist. 33)*
Session..... 407 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3568
District..... 407 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3568
Member
since 1975

▼ **Colburn, Richard** *(Dist. 37)*
Session..... 311 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3590
District..... 4731 Egypt Road
address .... P.O. Box 1237
Cambridge 21613-9538
410-228-1137
Member
since 1995

▼ **Collins, Michael J.** *(Dist. 6)*
Session..... 216 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3642
District..... 418 Eastern Blvd.
address .... Baltimore 21221-6786
410-391-7800
Member
since ..... 1986 (House 1978-1986)

▼ **Craig, David R.** *(Dist. 34)*
Session..... 307 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3158
District..... 211 N. Washington St.
address .... Havre de Grace 21078
410-273-6667
Member
since ..... 1995 (House 1991-1994)

▼ **Currie, Ulysses .** *(Dist. 25)*
Session..... 100 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3127
District..... 6621 Lacona Street
address .... Forestville 20747-2840
301-967-0190
Member
since ..... 1995 (House 1987-1994)

▼ **Della, George W., Jr.** *(Dist. 47)*
Session..... 207 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3600
District..... 801 Light St., 2nd Fl.
address .... Baltimore 21230-3912
410-224-8400
Member
since 1983

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

▼ **Derr, John W.** *(Dist. 3)*
Session..... 408 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3575
District..... 233 N. Market St.
address .... Frederick 21701-5334
301-695-5733
Member
since 1983

▼ **Dorman, Arthur** *(Dist. 21)*
Session..... 116 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3141
District..... 116 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3141
Member
since ..... 1975 (House 1965-1975)

▼ **Dyson, Roy P.** *(Dist. 29)*
Session..... 215 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3673
District..... Dyson Bldg. Center
address .... P.O. Box 5
Great Mills 20634-0005
301-994-9000
Member
since 1995
(formerly U.S. Congress)

▼ **Ferguson, Timothy R.** *(Dist. 4)*
Session..... 403 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3704
District..... 403 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3704
Member
since 1995

▼ **Forehand, Jennie M.** *(Dist. 17)*
Session..... 214 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3134
District..... 712 Smallwood Road
address ... Rockville 20850-2144
301-762-4772
Member
since ..... 1995 (House 1978-1994)

▼ **Frosh, Brian E.** *(Dist. 16)*
Session..... 202 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3124
District..... 7315 Wisconsin Ave.
address ... Suite 800 West
Bethesda 20814-3202
301-652-2888
Member
since ..... 1995 (House 1987-1994)

▼ **Green, Leo E.** *(Dist. 23)*
Session..... 212 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3631
District..... 3123 Belair Dr.
address .... Bowie 20715-3198
301-858-3631
Member
since ..... 1983 (House 1975-1979)

▼ **Hafer, John J.** *(Dist. 1)*
Session..... 406 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3565
District..... 58 Frost Ave.
address .... P.O. Box 116
Frostburg 21532-0116
301-689-4666
Member
since 1991

▼ **Haines, Larry E.** *(Dist. 5)*
Session..... 401 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3683
District..... 401 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3683
Member
since 1991

▼ **Hoffman, Barbara A.** *(Dist. 42)*
Session..... 100 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3648
District..... 6615 Reisterstown Rd.
address .... Suite 301
Baltimore 21215-2603
410-764-3614
Member
since 1983

▼ **Hogan, Patrick J.** *(Dist. 39)*
Session..... 305 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3686
District..... 305 Senate Office Bldg
address .... Annapolis 21401-1991
ext. 3686
Member
since 1995

▼ **Hollinger, Paula C.** *(Dist. 11)*
Session..... 206 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3131
District..... 206 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3131
Member
since ..... 1987 (House 1979-1987)

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

MEMBERS OF THE SENATE

▼ **Hughes, Ralph M.** *(Dist. 40)*
Session ..... 310 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3656
District ..... 2320 North Monroe St.
address .... Baltimore 21217-1398
410-225-0555
Member
since ..... 1991 (House 1983-1990)

▼ **Jimeno, Philip C.** *(Dist. 31)*
Session ..... 316 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3658
District ..... 316 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3658
Member
since ..... 1985 (House 1979-1985)

▼ **Kasemeyer, Edward J.** *(Dist. 12)*
Session ..... 309 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3653
District ..... 1330 Sulphur Spring Rd.
address .... 2nd Floor Office
Arbutus 21227-2794
410-242-5699
Member
since 1995

▼ **Kelley, Delores G.** *(Dist. 10)*
Session ..... 209 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3606
District ..... 6660 Security Blvd.
address .... Suite 10
Baltimore 21207
410-298-9707
Member
since 1995

▼ **Lawlah, Gloria Gary** *(Dist. 26)*
Session ..... 314 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3092
District ..... 6125 Oxon Hill Rd.
address .... Oxon Hill 20745
301-839-0868
Member
since ..... 1991 (House 1987-1990)

▼ **Madden, Martin G.** *(Dist. 13)*
Session ..... 402B Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3572
District ..... 402B Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3572
Member
since ..... 1995 (House 1991-1994)

▼ **McCabe, Christopher J.** *(Dist. 14)*
Session ..... 404 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3671
District ..... 12400 Clarksville Pike
address .... Clarksville 21029-1225
410-988-9818
Member
since 1991

▼ **McFadden, Nathaniel J.** *(Dist. 45)*
Session ..... 208 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3165
District ..... 1033 N. Central Avenue
address .... Baltimore 21202
410-563-0696
Member
since 1995

▼ **Middlebrooks, C. Edward** *(Dist. 32)*
Session ..... 302 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3593
District ..... 302 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3593
Member
since 1995

▼ **Middleton, Thomas McLain** *(Dist. 28)*
Session ..... 210 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3616
District 210 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3616
Member
since 1995

♦ **Miller, Thomas V. 'Mike,' Jr.** *(Dist. 27)*
Session ..... H-107 State House
address .... Annapolis 21401-1991
ext. 3700
District ..... H-107 State House
address .... Annapolis 21401-1991
ext. 307
Member
since ..... 1975 (House 1971-1975)

▼ **Munson, Donald F.** *(Dist. 2)*
Session ..... 405 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3609
District ..... 28 West Church St.
address .... Hagerstown 21740-4808
301-791-4511
Member
since ..... 1991 (House 1975-1990)

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

▼ **Pica, John A., Jr.** *(Dist. 43)*
Session..... 402A Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3145
District..... 402A Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3145
Member
since ..... 1983 (House 1979-1982)

▼ **Pinsky, Paul G.** *(Dist. 22)*
Session..... 303 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3155
District..... 303 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3155
Member
since ..... 1995 (House 1987-1994)

▼ **Roesser, Jean W.** *(Dist. 15)*
Session..... 308 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3169
District..... 10803 Fox Hunt Lane
address .... Potomac 20854-1553
301-299-9046
Member
since ..... 1995 (House 1987-1994)

▼ **Ruben, Ida G.** *(Dist. 20)*
Session..... 204 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3634
District..... 204 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3634
Member
since ..... 1987 (House 1975-1987)

▼ **Sfikas, Perry** *(Dist. 46)*
Session..... 211 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3598
District..... 211 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3598
Member
since 1995

▼ **Stoltzfus, J. Lowell** *(Dist. 38)*
Session..... 409 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3645
District..... 30487 Broad St.
address .... Princess Anne 21853-1211
410-651-3886
410-742-3999
Member
since ..... 1992 (House 1991-1992)

▼ **Stone, Norman R., Jr.** *(Dist. 7)*
Session..... PW Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3587
District..... 6905 Dunmanway
address .... Baltimore 21222-5194
410-288-5270
Member
since ..... 1967 (House 1963 -1967)

▼ **Teitelbaum, Leonard H.** *(Dist. 19)*
Session..... 205 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3151
District..... 205 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3151
Member
since ..... 1995 (House 1987-1994)

▼ **Trotter, Decatur W.** *(Dist. 24)*
Session..... 313 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3148
District..... 1891 Brightseat Rd.
address .... Landover 20785-4256
301-772-2800
Member
since ..... 1983 (House 1975-1979)

▼ **VanHollen, Christopher, Jr.** *(Dist. 18)*
Session..... 304 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3137
District..... 3514 Farragut Avenue
address .... Kensington 20895-2132
301-933-3213
Member
since ..... 1995 (House 1991-1994)

▼ **Young, Larry** *(Dist. 44)*
Session..... 306 Senate Office Bldg.
address .... Annapolis 21401-1991
ext. 3612
District..... 601 N. Eutaw Street
address .... Chesapeake Commons,
#102
Baltimore 21201-4527
410-539-6650
Member
since ..... 1988 (House 1975-1987)

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

Members of the House, alphabetically with addresses

▼ **Arnick, John S.** *(Dist. 7)*
Session ..... 426 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3458
District ..... 7918 Diehlwood Rd.
address .... Baltimore 21222-3316
410-285-2109
Member
since 1983 (1967-1979)

▼ **Baker, Rushern L., III** *(Dist. 22B)*
Session ..... 207 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3058
District ..... 207 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3058
Member
since 1995

▼ **Baker, Wheeler R.** *(Dist. 36)*
Session ..... 422 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3189
District ..... 918 Chester River Drive
address .... Grasonville 21638-9801
410-758-3960
Member
since 1995

▼ **Baldwin, Robert C.** *(Dist. 33)*
Session ..... 214 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3223
District ..... 1278 Robert Road
address .... Crownsville 21032-1913
410-987-1132
Member
since 1995

▼ **Barve, Kumar P.** *(Dist. 17)*
Session ..... 222 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3001
District ..... 11 Pontiac Way
address .... Gaithersburg 20878-2743
301-869-1488
Member
since 1991

▼ **Beck, Raymond** *(Dist. 39)*
Session ..... 225 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3037
District ..... 16704 Briardale Road
address .... Derwood 20855-2031
301-948-6636
Member
since 1995

▼ **Benson, Joanne C.** *(Dist. 24)*
Session ..... 204 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3065
District ..... 1891 Brightseat Rd.
address .... Landover 20785-4256
301-772-2802
Member
since 1991

▼ **Billings, Leon G.** *(Dist. 18)*
Session ..... 223 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3028
District ..... 1625 K. Street, NW
address .... Ste. 790
Washington, D.C. 20006
202-293-7800
Member
since 1991

▼ **Bissett, Phillip D.** *(Dist. 30)*
Session ..... 212 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3211
District ..... 212 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3211
Member
since 1991

▼ **Bobo, Elizabeth** *(Dist. 12B)*
Session ..... 209 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3205
District ..... 5561 Suffield Court
address .... Columbia 21044-2774
410-730-1206
Member
since 1995

▼ **Bonsack, Rose Mary Hatem** *(Dist. 34)*
Session ..... 326 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3289
District ..... 118 West Bel Air Ave.
address .... Aberdeen 21001-3238
410-273-9549
Member
since 1991

▼ **Boston, Frank D., Jr.** *(Dist. 41)*
Session ..... 314 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3283
District ..... 2200 Garrison Blvd.
address .... Suite 202
Baltimore 21216-2631
410-566-3373
Member
since 1987

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

▼ **Bozman, Bennett** *(Dist. 38)*
Session ..... 413 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3431
District ..... 413 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3431
Member
since 1991

▼ **Branch, Talmadge** *(Dist. 45)*
Session ..... 301 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3257
District ..... 301 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3257
Member
since 1995

▼ **Brinkley, David R.** *(Dist. 4A)*
Session ..... 323 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3107
District ..... 12775 Barnett Drive
address .... P.O. Box 321
New Market 21774-0321
301-698-9206
Member
since 1995

▼ **Burns, Emmett C., Jr.** *(Dist. 10)*
Session ..... 309 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3350
District ..... 8419-B Liberty Road
address .... Baltimore 21244-3100
410-922-8474
Member
since 1995

▼ **Burns, Michael W.** *(Dist. 32)*
Session ..... 215 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3233
District ..... 6443 Grafton Garth Court
address .... Glen Burnie 21061-8822
410-766-0755
Member
since 1995

▼ **Busch, Michael Erin** *(Dist. 30)*
Session ..... 151 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3519
District ..... 151 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3519
Member
since 1987

▼ **Cadden, Joan** *(Dist. 31)*
Session ..... 213 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3217
District ..... 111 Cedar Hill Rd.
address .... Brooklyn Park 21225-3903
410-789-1914
Member
since 1991

▼ **Campbell, James W.** *(Dist.42)*
Session ..... 319 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3297
District ..... 1329 1/2 W 41st St.
address .... Baltimore 21211-1550
410-366-8160
Member
since 1979

▼ **Ciliberti, Barrie S.** *(Dist. 39)*
Session ..... 225 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3037
District ..... 9310 Weathervane Place
address .... Gaithersburg 20879-1411
301-417-7172
Member
since 1995

▼ **Clagett, Virginia** *(Dist. 30)*
Session ..... 212 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3211
District ..... 1387 Cumberstone Road
address .... P.O. Box 1
West River 20778-0001
410-867-1550
Member
since 1995

▼ **Conroy, Mary A.** *(Dist. 23)*
Session ..... 208 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3098
District ..... 208 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3098
Member
since ..... 1986 (Senate 1982-1983)

▼ **Conway, Norman H.** *(Dist. 38)*
Session ..... 416 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3425
District ..... 1312 Whittier Dr.
address .... Salisbury 21801-3241
410-543-9060
Member
since 1987

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

▼ **Crumlin, Michael A.** *(Dist. 25)*
Session ..... 203 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3076
District ..... 203 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3076
Member
since 1995

▼ **Cryor, Jean** *(Dist. 15)*
Session ..... 219 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3052
District ..... 11700 Ambleside Drive
address .... Potomac 20854-2101
301-762-7993
Member
since 1995

▼ **Cummings, Elijah E.** *(Dist. 44)*
Session ..... 312 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3391
District ..... 2300 N. Calvert St.
address Ste.100
Baltimore 21218-5201
410-366-4550
Member
since 1983

▼ **Curran, Gerald J.** *(Dist. 43)*
Session ..... 141 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3502
District ..... Cromwell Ctr.
address .... Suite 201
810 Gleneagles Ct.
Towson 21286-2203
410-821-2920
Member
since 1967

▼ **Davis, Clarence** *(Dist. 45)*
Session ..... 301 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3257
District ..... 1628 East 32nd Street
address .... P.O. Box 33167
Baltimore 21218
410-366-0483
Member
since 1983

▼ **Davis, Dereck** *(Dist. 25)*
Session ..... 203 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3076
District 203 House Office Bldg.
address Annapolis 21401-1991
ext. 3076
Member
since 1995

▼ **DeCarlo, Diane** *(Dist. 6)*
Session ..... 303 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3384
District ..... 11121 Pulaski Highway
address .... White Marsh 21162-1819
410-335-0003
Member
since 1995

▼ **Dembrow, Dana Lee** *(Dist. 20)*
Session ..... 219 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3052
District ..... 2917 Schubert Drive
address .... Silver Spring 20904-6893
301-890-0225
Member
since 1987

▼ **Dewberry, Thomas E.** *(Dist. 47B)*
Session ..... 304 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3378
District ..... 1917 Tadcaster Road
address .... Baltimore 21228
410-747-0407
Member
since 1989

▼ **Dixon, Richard N.** *(Dist. 5)*
Session ..... 322 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3371
District ..... 1224 Western Chapel Rd.
address .... New Windsor 21776-8816
410-848-6945
Member
since 1983

▼ **Donoghue, John P.** *(Dist. 2C)*
Session ..... 321 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3447
District ..... 49 Summit Ave.
address .... Hagerstown 21740-5522
301-790-3780
Member
since 1991

▼ **Doory, Ann Marie** *(Dist. 43)*
Session ..... 121 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3476
District ..... 112 Taplow Rd.
address .... Baltimore 21212-3312
410-323-0401
Member
since 1987

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▼ **Dypski, Cornell N.** *(Dist. 46)*
Session..... 316 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3303
District..... 638 South Decker Ave.
address .... Baltimore 21224-3911
410-276-1974
Member
since ..... 1987 (Senate 1975-1983)

▼ **Eckardt, Adelaide C.** *(Dist. 37B)*
Session..... 404 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3343
District..... 12 Nanticoke Road
address ... Cambridge 21613-1012
410-221-6561
Member
since 1995

▼ **Edwards, George C.** *(Dist. 1A)*
Session..... 320 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3435
District..... 23 N. Pennsylvania Ave.
address .... P.O. Box 8
Grantsville 21536-0008
301-895-5720
Member
since 1983

▼ **Elliott, Donald B.** *(Dist. 4B)*
Session..... 323 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3107
District..... 204 Lambert Ave.
address .... P.O. Box 370
New Windsor 21776-0370
410-848-5373
Member
since 1987

▼ **Exum, Nathaniel** *(Dist. 24)*
Session..... 201 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3074
District..... 1891 Brightseat Rd.
address .... Landover 20785-4256
301-772-2801
Member
since 1975

▼ **Faulkner, Patricia A.** *(Dist. 14A)*
Session..... 219 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3052
District..... 2805 Nalls Lane
address .... Silver Spring 20904-4539
301-384-5292
Member
since 1995

▼ **Finifter, Michael J.** *(Dist. 11)*
Session..... 306 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3342
District..... 12147 Faulkner Drive
address .... Owings Mills 21117-1261
410-581-9703
Member
since 1995

▼ **Flanagan, Robert L.** *(Dist. 14B)*
Session..... 226 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3200
District..... 12400 Clarksville Pike
address .... Clarksville 21029-1225
410-988-9818
Member
since 1987

▼ **Franchot, Peter** *(Dist. 20)*
Session..... 424 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3460
District..... 7111 Sycamore Ave.
address .... Takoma Park 20912-4634
301-270-8417
Member
since 1987

▼ **Frank, Robert L.** *(Dist. 11)*
Session..... 306 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3342
District..... 11100 Reisterstown Road
address .... Owings Mills 21117-2127
410-363-1771
Member
since 1995

▼ **Frush, Barbara** *(Dist. 21)*
Session..... 210 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3114
District..... 3019 Chapel View Drive
address .... Beltsville 20705-3429
301-572-4042
Member
since 1995

▼ **Fry, Donald C.** *(Dist. 35A)*
Session..... 326 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3289
District..... 1714 W. Jarrettsville Rd.
address .... Jarrettsville 21084-1524
410-836-6747
Member
since 1991

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

▼ **Fulton, Tony E.** *(Dist. 40)*
Session..... 317 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3277
District..... 3501 Dennlyn Rd.
address .... Baltimore 21215-7416
410-366-5135
Member
since 1987

▼ **Genn, Gilbert J.** *(Dist. 16)*
Session..... 220 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3045
District..... 1 Central Plaza
address .... Suite 1008
11300 Rockville Pike
Rockville 20852-3035
301-881-7700
Member
since 1987

▼ **Getty, Joseph M.** *(Dist. 5)*
Session..... 322 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3371
District..... 3270 York Street
address .... P.O. Box 398
Manchester 21102-0398
410-374-2605
Member
since 1995

▼ **Goldwater, Marilyn** *(Dist. 16)*
Session..... 221 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3019
District..... 5508 Durbin Road
address..... Bethesda 20814-1012
301-656-1226
Member
since 1995

▼ **Gordon, Michael R.** *(Dist. 17)*
Session..... 151 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3519
District..... 416 Hungerford Dr.
address .... Suite 330
Rockville 20850-4127
301-294-2100
Member
since 1983

▼ **Greenip, Janet** *(Dist. 33)*
Session..... 214 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3223
District..... 1469 Harwell Avenue
address .... Crofton 21114-2137
410-721-0050
Member
since 1995

▼ **Grosfeld, Sharon** *(Dist. 18)*
Session..... 223 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3028
District..... 2506 Plyers Mill Road
address .... Silver Spring 20902-4245
301-261-8550
Member
since 1995

▼ **Guns, Ronald A.** *(Dist. 36)*
Session..... 161 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3534
District..... 107 Railroad Ave.
address .... Elkton 21921-5535
410-392-4422
Member
since 1983

▼ **Hammen, Peter** *(Dist. 46)*
Session..... 316 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3303
District..... 316 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3303
Member
since 1995

▼ **Harkins, James M.** *(Dist. 35A)*
Session..... 326 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3289
District..... 4 East Jarrettsville Rd.
address .... P.O. Box 149
Forest Hill 21050-0149
410-838-6636
Member
since 1991

▼ **Harrison, Hattie N.** *(Dist. 45)*
Session..... 427 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3486
District..... 1054 N. Milton Ave.
address .... Baltimore 21205-1319
410-342-4414
Member
since 1973

▼ **Healey, Anne** *(Dist. 22A)*
Session..... 207 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3058
District..... 207 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3058
Member
since 1991

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

▼ **Hecht, Sue** *(Dist. 3)*
Session..... 324 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3240
District..... 2498 Bear Den Road
address .... Frederick 21701-9311
301-698-0054
Member
since 1995

▼ **Heller, Henry B.** *(Dist. 19)*
Session..... 429 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3528
District..... 12706 Turkey Br. Pkwy.
address .... Rockville 20853-3443
301-949-4265
Member
since 1987

▼ **Hixson, Sheila Ellis** *(Dist. 20)*
Session..... 100 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3469
District..... 100 House Office Bldg.
address .... Annapolis 21401-1991
301-384-4739
Member
since 1976

▼ **Holt, Kenneth** *(Dist. 6)*
Session..... 303 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3384
District..... 303 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3384
Member
since 1995

▼ **Howard, Carolyn J.B.** *(Dist. 24)*
Session..... 204 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3065
District..... 1891 Brightseat Rd.
address .... Landover 20785-4256
301-772-2803
Member
since ..... 1991 (also 1988-1990)

▼ **Hubbard, James W.** *(Dist. 23)*
Session..... 208 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3103
District..... 13305 Gallery Ct.
address .... Bowie 20720-3866
301-464-6326
Member
since 1992

▼ **Hughes, Brenda B.** *(Dist. 25)*
Session..... 203 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3076
District..... 203 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3076
Member
since 1993

▼ **Hughes, Don B.** *(Dist. 37A)*
Session..... 414 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3427
District..... 5231 Dove Point Lane
address .... P.O. Box 1048
Salisbury 21802
410-742-5888
Member
since 1995

▼ **Hurson, John Adams** *(Dist. 18)*
Session..... 313 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3464
District..... 313 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3464
Member
since 1991

▼ **Hutchins, Thomas E.** *(Dist. 28)*
Session..... 216 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3247
District..... P.O. Box 9
address .... LaPlata 20646-0009
301-934-8978
Member
since 1995

▼ **Jacobs, Nancy** *(Dist. 34)*
Session..... 326 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3289
District..... 2005 Pulaski Highway
address .... P.O. Box 1101
Edgewood 21040
410-676-3858
Member
since 1995

▼ **Kach, A. Wade** *(Dist. 9A)*
Session..... 308 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3359
District..... 214 Ashland Rd.
address .... Cockeysville 21030-1902
410-527-1962
Member
since 1975

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▼ **Kagan, Cheryl C.** *(Dist. 17)*
Session..... 224 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3046
District..... 726 College Parkway
address .... Rockville 20850-1929
301-424-2161
Member
since 1995

▼ **Kelly, James M.** *(Dist. 9B)*
Session..... 308 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3359
District..... 607 Fairway Drive
address .... Towson 21286-7842
410-832-7842
Member
since 1987

▼ **Kirk, Ruth M.** *(Dist. 44)*
Session..... 315 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3263
District..... 501-C Pennsylvania Ave.
address .... Baltimore 21201-1949
410-462-1552
Member
since 1983

▼ **Kittleman, Robert H.** *(Dist. 14B)*
Session..... 411 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3401
District..... 12400 Clarksville Pike
address .... Clarksville 21029-1225
410-988-9818
Member
since 1983

▼ **Klausmeier, Katherine** *(Dist. 8)*
Session..... 307 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3365
District..... 9500 Belair Road
address .... Baltimore 21236
ext. 3365
Member
since 1995

▼ **Klima, Martha S.** *(Dist. 9A)*
Session..... 308 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3359
District..... 1403 Newport Place
address .... Lutherville 21093-5920
410-337-2799
Member
since 1983

▼ **Kopp, Nancy K.** *(Dist. 16)*
Session..... 221 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3019
District..... 221 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3019
Member
since 1975

▼ **Krysiak, Carolyn J.** *(Dist. 46)*
Session..... 316 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3303
District..... 364 Cornwall St.
address .... Baltimore 21224-2710
410-633-2927
Member
since 1991

▼ **La Vay, Richard** *(Dist. 15)*
Session..... 405 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3090
District..... 405 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3090
Member
since 1991

▼ **Leopold, John** *(Dist. 31)*
Session..... 213 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3217
District..... 8626 Houlton Harbour
address .... Pasadena 21122
410-255-4477
Member
since 1995

▼ **Linton, Samuel C.** *(Dist. 28)*
Session..... 216 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3247
District..... Route 1, Box 110
address .... Holly Springs Road
Nanjemoy 20662-0110
301-246-4464
Member
since 1995

▼ **Love, Mary Ann** *(Dist. 32)*
Session..... 215 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3233
District..... 7961 Crownsway
address .... Glen Burnie 21061-6263
410-761-9963
Member
since 1993

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

▼ **Malone, James E.** *(Dist. 12A)*
Session..... 304 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3378
District..... 304 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3378
Member
since 1979

▼ **Mandel, Adrianne** *(Dist. 19)*
Session..... 220 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3045
District..... 13816 North Gate Drive
address .... Silver Spring 20906
301-460-0295
Member
since 1995

▼ **Marriott, Salima Siler** *(Dist. 40)*
Session..... 317 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3277
District..... 4515 Homer Ave.
address .... Baltimore 21215-6302
410-664-1228
Member
since 1991

▼ **McClenahan, Charles A.**
(Dist. 38)
Session..... 412 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3433
District..... 412 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3433
Member
since 1992

▼ **McHale, Brian K.** *(Dist. 47A)*
Session..... 310 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3319
District..... 801 Light St.
address .... 2nd Floor
Baltimore 21230-3912
410-244-8400
Member
since 1990

▼ **McIntosh, Maggie** (Dist. 42)
Session..... 319 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3297
District..... 6615 Reisterstown Road
address .... Suite 301
Baltimore 21215-2603
410-358-2208
Member
since 1992

▼ **McKee, Robert A.** *(Dist. 2A)*
Session..... 321 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3447
District..... 10819 Oak Valley Drive
address .... Hagerstown 21740-7848
301-739-4711
Member
since 1995

▼ **Menes, Pauline H.** *(Dist. 21)*
Session..... 210 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3114
District..... 3517 Marlbrough Way
address .... College Park 20740-3925
301-935-6270
Member
since 1967

▼ **Minnick, Joseph J. "Sonny"** *(Dist. 7)*
Session..... 305 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3332
District..... 1702 Stokesley Road
address .... Baltimore 21222-4837
410-285-3621
Member
since 1995

♦ **Mitchell, Clarence, IV** *(Dist. 44)*
Session..... 315 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3263
District..... 1239 Druid Hill Avenue
address .... Baltimore 21217-3031
410-523-6275
Member
since 1995

▼ **Mitchell, Van T.** *(Dist. 28)*
Session..... 216 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3247
District..... 6 St. Mary's Avenue
address .... P.O. Box W
LaPlata 20646-3900
301-934-4665
Member
since 1995

▼ **Mohorovic, Jacob J., Jr.** *(Dist. 7)*
Session..... 305 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3334
District..... 1947 Midland Road
address .... Dundalk 21222-4643
410-284-5253
Member
since 1995

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▼ **Montague, Kenneth C., Jr.** *(Dist. 43)*
Session ..... 310 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3259
District ..... 310 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3259
Member
since 1987

▼ **Morgan, John S.** *(Dist. 13B)*
Session ..... 226 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3200
District ..... 7920 Ashford Blvd.
address .... Laurel 20707-5874
301-604-5874
Member
since 1991

▼ **Morhaim, Dan K.** *(Dist. 11)*
Session ..... 306 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3342
District ..... 8 Park Center Court
address .... Suite 100
Owings Mills 21117
410-581-8712
Member
since 1995

▼ **Mossburg, Mathew** *(Dist. 39)*
Session ..... 225 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3037
District ..... 225 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3037
Member
since 1995

▼ **Murphy, Donald E.** *(Dist. 12A)*
Session ..... 304 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3378
District ..... 304 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3378
Member
since 1995

▼ **Murphy, Margaret H.** *(Dist. 41)*
Session ..... 314 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3283
District ..... 4811 Liberty Hghts. Ave.
address .... Baltimore 21207-7193
410-367-5811
Member
since 1978

▼ **Murphy, Timothy D.** *(Dist. 47A)*
Session ..... 310 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3319
District ..... 310 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3319
Member
since 1995

▼ **Muse, C. Anthony** *(Dist. 26)*
Session ..... 205 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3012
District ..... 205 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3012
Member
since 1995

▼ **Nathan-Pulliam, Shirley** *(Dist. 10)*
Session ..... 309 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3350
District ..... 6660 Security Blvd.
address .... Suite 10
Baltimore 21207
ext. 3350
Member
since 1995

▼ **Oaks, Nathaniel T.** *(Dist. 41)*
Session ..... 314 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3283
District ..... 314 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3283
Member
since 1995

▼ **O'Donnell, Anthony J.** *(Dist. 29C)*
Session ..... 217 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3314
District ..... 13010 Barreda Blvd.
address .... P.O. Box 682
Lusby 20657-0682
410-586-2200 ext. 4321
Member
since 1995

▼ **Owings, George W., III** *(Dist. 27B)*
Session ..... 217 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3231
District ..... 217 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3231
Member
since 1988

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

▼ **Palumbo, Richard A.** *(Dist. 22A)*
Session ..... 207 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3058
District ..... 4004 St. Barnabas Rd.
address .... Suitland 20746-3202
301-423-8300
Member
since ..... 1990 (also 1979-1982,1986)
(Senate 1982-83)

▼ **Parker, Joan N.** *(Dist. 10)*
Session ..... 309 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3350
District ..... 6660 Security Blvd.
address .... Suite 10
Baltimore 21207-4012
410-265-5700
Member
since 1995

▼ **Patterson, Obie** *(Dist. 26)*
Session ..... 205 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3012
District ..... 6126 Oxon Hill Road
address .... Oxon Hill 20745
301-839-4986
Member
since 1995

▼ **Pendergrass, Shane** *(Dist. 13A)*
Session ..... 209 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3205
District ..... 9705 Deep Smoke
address .... Columbia 21046-2807
301-498-6632
Member
since 1995

▼ **Perry, Marsha G.** *(Dist. 33)*
Session ..... 214 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3223
District ..... 1605 Edgerton Place
address .... Crofton 21114-1504
410-721-7034
Member
since 1987

▼ **Petzold, Carol Stoker** *(Dist. 19)*
Session ..... 222 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3001
District ..... 14113 Chadwick Lane
address .... Rockville 20853-2103
301-871-7413
Member
since 1987

▼ **Pitkin, Joan B.** *(Dist. 23)*
Session ..... 208 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3098
District ..... 208 House Office Bldg.
address .... Annapolis 21401-1991
301-858-3098
Member
since 1979

▼ **Poole, D. Bruce** *(Dist. 2B)*
Session ..... 321 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3451
District ..... 92 West Washington St.
address..... Suite 207
Hagerstown 21740
301-739-6409
Member
since 1987

▼ **Ports, James F., Jr.** *(Dist. 8)*
Session ..... 307 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3365
District ..... 21 Robin Lynne Court
address .... Perry Hall 21128-9417
410-529-8888
Member
since 1991

▼ **Preis, Mary Louise** *(Dist. 34)*
Session ..... 326 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3289
District ..... 9 West Courtland St.
address .... Bel Air 21014-3701
410-838-5890
Member
since 1991

▼ **Proctor, James E., Jr.** *(Dist. 27A)*
Session ..... 206 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3083
District ..... 11204 Cedarville Rd.
address .... Brandywine 20613-7690
301-888-9353
Member
since 1990

▼ **Rawlings, Howard P.** *(Dist. 40)*
Session ..... 131 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3407
District ..... 3502 Sequoia Ave.
address .... Baltimore 21215-7211
410-466-4224
Member
since 1979

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▼ **Redmer, Alfred W., Jr.** *(Dist. 8)*
Session..... 307 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3365
District..... 4134 East Joppa Rd.
address .... Suite 106
Baltimore 21236
410-529-8888
Member
since 1991

▼ **Rosapepe, James C.** *(Dist. 21)*
Session..... 100 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3521
District..... 8403 Patuxent Avenue
address .... College Park 20740-2502
301-441-8690
Member
since 1987

▼ **Rosenberg, Samuel I.** *(Dist. 42)*
Session..... 319 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3297
District..... 6615 Reisterstown Rd.
address .... Suite 301
Baltimore 21215-2603
410-358-2712
Member
since 1983

▼ **Rudolph, David D.** *(Dist. 35B)*
Session..... 403 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3444
District..... 367 Slicers Mill Road
address .... Rising Sun 21911-1635
410-996-6010
Member
since 1995

▼ **Rzepkowski, James E.** *(Dist. 32)*
Session..... 215 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3233
District..... 8 Kellington Drive
address .... Pasadena 21122-1007
410-766-4672
Member
since 1995

▼ **Schade, Victoria L.** *(Dist. 31)*
Session..... 213 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3217
District..... 8341 Capel Drive
address ... Pasadena 21122-4827
ext. 3217
Member
since 1995

Schisler, Kenneth D. (*Dist. 37B*)
Session..... 415 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3429
District..... 5 Federal St.
address .... Suite 223
P.O. Box 1936
Easton 21601-1936
410-822-8682
Member
since 1991

▼ **Shriver, Mark K.** *(Dist. 15)*
Session..... 224 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3046
District..... 10014 Carter Road
address .... Bethesda 20817
301-469-6578
Member
since 1995

▼ **Slade, John Frank, III**
(Dist. 29B)
Session..... 217 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3314
District..... 24 Courthouse Dr.
address .... P.O. Box 288
Leonardtown 20650-0288
301-475-5151
301-994-2930
Member
since 1983

▼ **Snodgrass, Louise B.**
(Dist. 3)
Session..... 324 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3240
District..... P.O. Box 845
address .... Middletown 21769
301-371-6179
Member
since 1995

▼ **Stocksdale, Nance Reter** *(Dist. 5)*
Session..... 322 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3371
District..... 39 Ridge Road
address .... Westminster 21157
410-848-8088
Member
since 1995

▼ **Stull, Paul S.** *(Dist. 4A)*
Session..... 323 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3107
District..... 323 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3107
Member
since 1995

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▼ **Stup, J. Anita** *(Dist. 3)*
Session..... 324 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3240
District..... 153 West Patrick St.
address .... Suite A
Frederick 21701-5513
301-695-0075
Member
since 1991

▼ **Taylor, Casper R., Jr.** *(Dist. 1C)*
Session..... State House, Rm. 100
address .... Annapolis 21401-1991
ext. 3800
District..... State House, Rm. 100
address .... Annapolis 21401-1991
301-724-9234
Member
since 1975

♦ **Turner, Frank S.** *(Dist. 13A)*
Session..... 209 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3205
District..... 6284 Light Point Place
address .... Columbia 21045-4435
301-596-7618
Member
since 1995

▼ **Valderrama, David M.** *(Dist. 26)*
Session..... 205 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3012
District..... 6125 Oxon Hill Road
address .... Oxon Hill 20745
301-839-4986
Member
since 1991

▼ **Vallario, Joseph F., Jr.** *(Dist. 27A)*
Session..... 121 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3488
District..... 5210 Auth Rd., 6th Fl.
address .... Suitland 20746-4394
301-423-8100
Member
since 1975

▼ **Walkup, Mary Roe** *(Dist. 36)*
Session..... 423 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3449
District..... 12836 Still Pond Creek Rd.
address .... Worton 21678-1567
ext. 3449
Member
since 1995

▼ **Weir, Michael H.** *(Dist. 6)*
Session..... 303 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3384
District..... 611 Weir Lane
address .... Essex 21221-1642
410-686-4947
Member
since 1975

▼ **Wood, John F., Jr.** *(Dist. 29A)*
Session..... 141 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3502
District..... 6230 Waldorf
address .... Leonardtown Rd.
Mechanicsville 20659-3206
301-884-2345
Member
since 1987

▼ **Workman, Betty** *(Dist. 1B)*
Session..... 320 House Office Bldg.
address .... Annapolis 21401-1991
ext. 3462
District..... 65 La Vale Ct.
address .... Cumberland 21502-7420
301-729-2041
Member
since 1987

This information is accurate as of press time. Please contact the Department of Legislative Reference, ext. 3810, for current information.

Maryland congressional legislators

During 1996, legislation that affects health care will be considered at the federal level, as well as in the Maryland General Assembly. Below are the names, addresses, committee appointments, and phone and fax numbers of Maryland senators and representatives.

▼ **Senator Paul S. Sarbanes** (D)
309 Hart Senate Office Building
United States Senate
Washington, DC 20510
Phone: 202-224-4524
Fax: 202-224-1651
District: 410-962-4436
Committees: Banking, Housing, and Urban Affairs; Budget; Foreign Relations; Joint Economic (vice chairperson)

▼ **Senator Barbara A. Mikulski** (D)
709 Hart Senate Office Building
United States Senate
Washington, DC 20510
Phone: 202-224-4654
Fax: 202-224-8858
District: 410-962-4510
Committees: Appropriations; Labor and Human Resources; Select Ethics

▼ **Representative Wayne Gilchrest** (R-1st)
332 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-5311
Fax: 202-225-0254
District: 410-778-9407
Committees: Resources; Transportation and Infrastructure

▼ **Representative Robert L. Ehrlich, Jr.** (R-2nd)
315 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-3061
Fax: 202-225-3094
District: 410-337-7222
Committees: Banking; Government Reform and Oversight

▼ **Representative Benjamin L. Cardin** (D-3rd)
104 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-4016
Fax: 202-225-9219
District: 410-433-8886
Committees: Standards of Official Conduct (Ethics); Ways and Means

▼ **Representative Albert Wynn** (D-4th)
418 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-8699
Fax: 202-225-8714
District: 301-773-4094
Committees: International Relations; Banking and Financial Services

▼ **Representative Steny H. Hoyer** (D-5th)
1705 Longworth House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-4131
Fax: 202-225-4300
District: 301-464-6440
Committees: Appropriations; House Administration

▼ **Representative Roscoe Bartlett** (R-6th)
322 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-2721
Fax: 202-225-2193
District: 301-694-3030
Committees: Armed Services; Science, Space, and Technology; Small Business

▼ **Representative Kweisi Mfume*** (D-7th)
2419 Rayburn House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-4741
Fax: 202-225-3178
District: 410-367-1900
Committees: Banking, Finance, and Urban Affairs; Small Business; Standards of Official Conduct (Ethics)

▼ **Representative Constance A. Morella** (R-8th)
106 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-5341
Fax: 202-225-1389
District: 301-424-3501
Committees: Science; Government Reform and Oversight

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. From the Baltimore area, dial the exchange 841; from the Washington area, dial the exchange 858; outside the Baltimore/Washington areas, dial 800-492-7122.

* Rep. Mfume will leave office in mid-February to become president and chief executive officer of the NAACP. A special election to fill his vacancy is tentatively scheduled for March 5, 1996.

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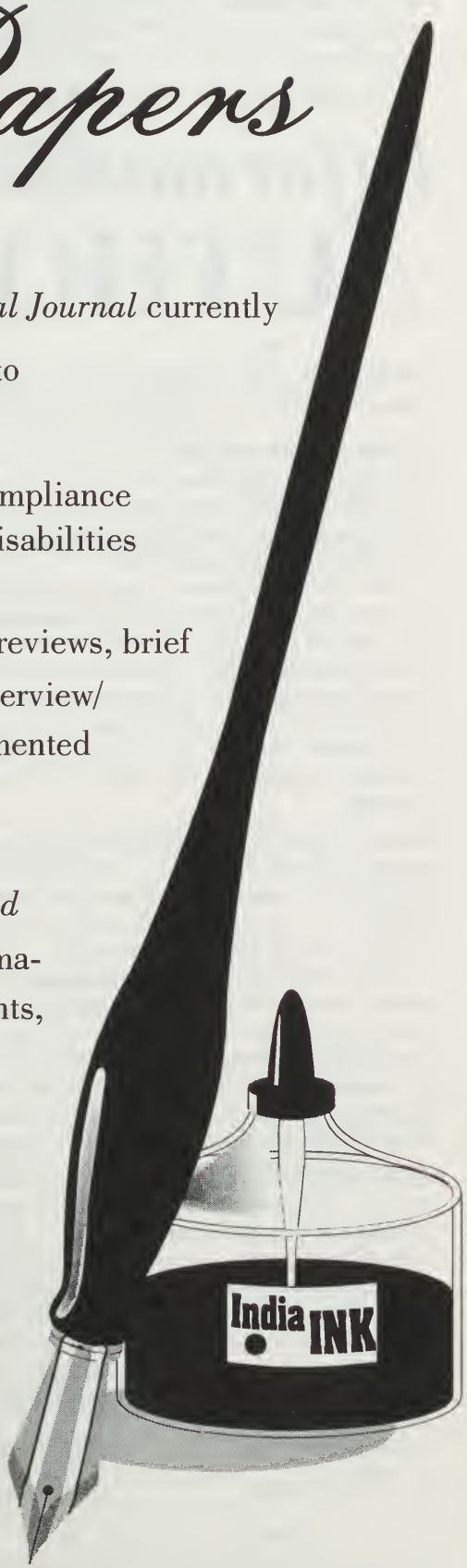
Call for Papers

The Editorial Board of the *Maryland Medical Journal* currently seeks original articles addressing topics related to

- Drug Interactions in the Elderly
- Strategies for Enhancing Therapeutic Compliance
- Assistive Technologies for People with Disabilities

Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/ summary of the relevant literature, or well-documented opinions about future trends.

All submissions should conform to *Maryland Medical Journal* requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor,
1211 Cathedral Street, Baltimore, MD 21201;
410-539-0872 or 1-800-492-1056;
FAX 410-547-0915.



The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects), membership and legislative news, continuing medical education notices, and programs and policies of the faculty.*

Information for AUTHORS

- ***Letter of transmittal***—The letter of transmittal, which all authors must sign, should include the full names, degrees, titles, and affiliations of all authors, and the name, address, and phone number of the author to whom reprint requests and correspondence should be sent.

  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

  In addition, the letter must include a paragraph that transfers copyright ownership to the *MMJ* in the event that the work is published.

- ***Manuscript preparation***—Manuscripts should be submitted to Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585. Manuscripts must be original material not previously published and not under consideration by another publication. An abstract of 100 to 300 words is required.

  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

- ***Illustrations***—Illustrations include material that cannot be set in type. Photographic material must be submitted as high-contrast, glossy prints. Drawings and graphs must be done professionally in india ink on high-grade white drawing paper or be computer generated. Identification—including figure number, the title of manuscript, the name of corresponding author, and arrow indicating top—should be typed on a gummed label and affixed to the back of each illustration. Legends for illustrations should be typed on a separate page with numbers corresponding to those on the photographs or drawings. Recognizable photographs of patients are to be masked and should carry with them written permission for publication. Cost of printing color photographs must be borne by the author.

Checklist

- ☐ Original manuscript and one copy.
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- ☐ Everything double-spaced.
- ☐ Letter of transmittal, signed by all authors, that includes release of copyright, statement of authorship responsibility, title and affiliation of all authors, and identification and phone number of corresponding author.
- ☐ Abstract of 100 to 300 words.
- ☐ Permission-to-borrow letters for any previously published illustrations or tables

- ***Permissions***—Material taken from other sources must be accompanied by written permission from both author(s) and publisher allowing the *MMJ* to reproduce the information/figure.

- ***Editorial responsibility***—All manuscripts are acknowledged upon receipt. They are subject to peer review by an editorial board and, at times, by guest reviewers in appropriate fields of medicine, to determine the originality, validity, and importance of the content and conclusions. Authors are usually notified of the status of their papers (acceptance, revision, or rejection) within 4 to 8 weeks of receipt; however, longer delays are sometimes unavoidable. Reviewers' comments will be returned with rejected manuscripts at the discretion of the Editor. All guest reviewers will remain anonymous.

  Accepted manuscripts become the permanent property of the *MMJ* and are subject to copy editing. (The *Chicago Manual of Style* and the unabridged *Random House Dictionary of the English Language* are used as style guides.) The corresponding author is sent a reprint order form and galley proofs. S(he) then has 48 hours in which to make minor changes and clear all corrections and changes with co-authors; if proofs are not returned by the specified date, they will be considered approved as typeset. ■

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

13th Annual Houston Everett memorial course in urogynecology, 17 Cat 1 AMA credits.	**Feb. 23–24**
37th Annual postgraduate institute for pathologists in clinical cytopathology, 95.5 Cat 1 AMA credits plus up to 22 hrs. of video instruction. **Registration must be received by Mar. 26, 1996.**	
Course A (home study)	**Feb.–April**
Course B (Johns Hopkins Medical Institutions, Baltimore, MD)	**April 15–26**
Hemodynamic monitoring, 14.5 Cat 1 AMA credits. Fee: $750.	**Mar. 1–2**
Perioperative management: a course designed for practitioners to limit patient risk by proper pre- and postoperative evaluation and care, 20 Cat 1 AMA credits. Fee: $495/physicians; $450/residents, fellows, CRNAs.	**Mar. 3–6**
Spectrum of developmental disabilities XVIII, 20 Cat 1 AMA credits.	**Mar. 18–20**
Sixth annual clinical care of the patient with HIV infection, 12.5 Cat 1 AMA/AAFP credits. Fee: $325/physicians; $175/residents, fellows, allied health professionals.	**Mar. 21–22**
15th Mid-Atlantic regional meeting of the Society of General Internal Medicine, Cat 1 AMA credits available. Fee: $100; $30/residents, fellows.	**Mar. 22**
PET and SPECT imaging in cancer diagnosis and treatment, 18.5 Cat 1 AMA credits. Fee: $495/physicians; $395/residents, fellows, allied health professionals.	**Mar. 25–27**
Nuclear oncology, 19 Cat 1 AMA credits.	**Mar. 25–27**
Diagnosis and treatment of neoplastic disorders, 14 Cat 1 AMA credits. Fee: $325/physicians; $150/residents, fellows, allied health professionals.	**Mar. 28–29**
Lipid disorders training program—advanced update, at the Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150.	**Mar. 29 & Sept. 6**
Biological response to orthopaedic implants, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 13 Cat 1 AMA credits. Fee: $275/physicians; $140/residents, fellows.	**April 12–13**
24th Annual pediatric trends, 42 Cat 1 AMA credits. Fee: Postmarked by Feb. 15, physicians/$650; allied health professionals/$450. Postmarked after Feb. 15, physicians/$695; allied health professionals/$495.	**April 15–20**
Tenth annual mood disorders symposium, 5 Cat 1 AMA credits. Fee: $50/DRADA members, $60/all others.	**April 23**
Lipid disorders training program—basic course, credits: TBA. Fee: $250.	**April 23–25 & Sept. 17–19**
Pediatric allergy and immunology for the practitioner, 14.5 Cat 1 AMA credits. Fee: $275/physicians; $200/residents, other allied health professionals.	**April 25-26**
Practical management of Alzheimer's disease and other dementias, at the Stouffer Renaissance Harborplace Hotel in Baltimore, MD. 7 Cat 1 AMA credits. Fee: $145/physicians; $110/psychologists in practice; $90/residents, fellows, allied health professionals.	**April 27**
The first international conference on the exstrophy-epispadias complex	**May 1-2**
13th Annual Wilmer nursing conference	**May 3**

The Johns Hopkins Medical Institutions (continued)

Critical issues in surgical pathology — **May 3–4**

41st Annual topics in clinical medicine, 40 Cat 1 AMA credits. Fee: $750/physicians; $600/residents, fellows, other allied health professionals. — **May 13–17**

Basic concepts in dysphagia diagnosis and management, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $185/physicians; $120/allied health professionals. — **May 29**

Sixth multidisciplinary symposium on dysphagia, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 14 Cat 1 AMA credits. Fee: $425/physicians; $245/residents, allied health professionals. — **May 30–31**

Clinical trials, 15 Cat 1 AMA credits. — **June 4–5**

Interface of biomechanics and cell biology in orthopedics — **June 6–8**

Advanced pediatric life support, 20 Cat 1 AMA credits. — **June 10–12**

Age-related macular degeneration: update 1996 — **June 14–15**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of case discussions by a different presenter on the first Thursday of each month. Info: Carol Kelly, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Surgical dilemmas in glaucoma management, at the Sheraton Inner Harbor Hotel, Baltimore, MD. 7 Cat 1 AMA credits. — **Feb. 23**

Glaucoma diagnosis and management for ophthalmic medical personnel, at the Sheraton Inner Harbor Hotel, Baltimore, MD (didactic session), UMMS dept. of ophthalmology (workshops). Cat 1 AMA credits available. Fee: $85. Info: Sharon Stenhouse, 410-706-3958; Mary Ann Millar, COMT, 410-328-6533. — **Feb. 23**

University of Maryland School of Medicine (continued)

Self-Directed CME Activities

Optimal dosing in chemotherapy: adoptive control with carboplatin, video tape, monograph, and test. Expires March 1996, 3 Cat 1 AMA credits. Info: 212-924-3044.

U.S. medical costs and values: primary prevention versus end stage treatment, monograph and test. Expires Aug. 1996, 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interaction: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous meetings

Modern approaches to office emergencies, sponsored by the Maryland Academy of Family Physicians at the Annapolis Waterfront Hotel, Annapolis, MD. 10 Cat 1 AMA/AAFP credits. Fee: $115/members; $150/nonmembers; $65/allied health professionals. No fee for inactive/life members/residents/medical students. Info: Maria E. Delgado, M.D., 410-747-1980. **Feb. 3–4**

Cardiovascular conference at Snowshoe, sponsored by the American College of Cardiology at Snowshoe, WV. 15.5 Cat 1 AMA credits. Info: 1-800-257-4739. **Feb. 5–7**

Management of the HIV-infected patient: a practical approach for the primary care practitioner, sponsored by the Center for Bio-Medical Communication, at the Waldorf Astoria, New York, NY. 20.25 Cat 1 AMA/PRA/AAFP credits. Info:Awilda Pinillos, 201-385-5650. **Feb. 16–18**

Creativity: its relationship to psychopathology and treatment, at Sheppard Pratt Conference Center, Baltimore, MD. 5.2 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. **Mar. 23**

Annual Maryland Thoracic Society research dinner and scientific session, "Obstructive diseases of the lung," at the Belvedere and Stouffer Renaissance Harborplace hotels in Baltimore, MD. Info: Anne Eder, 410-560-2120, ext. 206. **Mar. 23–24**

Clinical psychopharmacology: review and update—1996, at Sheppard Pratt Conference Center, Baltimore, MD. 13.8 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. **April 12–13**

Virginia Society of Otolaryngology-Head and Neck Surgery annual meeting, at the Homestead Resort, Hot Springs, VA. Info: Donna Scott, 804-649-2407. **April 26–27**

Sixth annual current concepts in orthopaedics, sponsored by the Southern Medical Association at the Omni Harbor Hotel in Baltimore, MD. Cat 1 AMA credits available. Fee: $295/SOA members; $359/SMA members; $495/all other physicians; $50/residents, fellows; $100/nonphysicians. Info: Michelle Williamson, 205-945-1840. **May 16–18**

Miscellaneous meetings (continued)

48th Annual meeting, scientific session, and exposition, sponsored by the Maryland Academy of Family Physicians at the Sheraton Fontainebleau Hotel in Ocean City, MD. 26.5 Cat 1 AMA/AAFP credits. Fee: $280/members; $325/nonmembers; $110/allied health professionals. Info: Leonard H. Raucher, M.D., 410-747-1980. **May 16–19**

Continuously throughout the year

American College of Cardiology, The Heart House Learning Center, in Bethesda, MD. Info: 1-800-257-4737.

Advanced echocardiography: illustrative case studies and latest techniques.	**Feb. 5–7**
Molecular biology for the cardiologist.	**Feb. 21–23**
Advanced clinical cardiac electrophysiology.	**Feb. 26–28**
Cardiovascular surgery: challenging management problems in coronary artery diseases, valvular heart disease and thoracic aortic pathology.	**Feb. 26–Mar. 2**
Echocardiography for sonographers and cardiology trainees: 2-D/Doppler, color flow imaging, TEE and stress echo—practical review.	**Mar. 7–9**
Echocardiography in coronary artery disease: live demonstration and interpretations of exercise and pharmacologic stress echo.	**April 10–12**
Advanced pediatric cardiac ultrasound.	**April 15–17**
Cardiac pacing—1996: new indications for pacing, rate adaptive pacing updates, update on cardioversion–defibrillation.	**April 18–20**
Transesophageal echocardiography: live demonstration of technique, image orientation, interpretations, and current and evolving applications of biplane and multiplane TEE.	**April 24–26**

PHYSICIAN'S RECOGNITION AWARD

During November 1995, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

RGershon H. Bergeisen
Joseph P. Connelly
James D. Felsen
Alan R. Gair
George T. Gilmore
Abolghassem Gohari
Michael D. Goodman
Ann I. Hellerstein
Stephan R. Izzi
David G. Kemp
Vanna M. Manigault
Marcia Ormsby
George B. Patrick
Morris W. Pulliam
Kweon Stambaugh
James W. Voell
Mark G. Wolfman

Miscellaneous meetings (continued)

Echocardiography as we approach the year 2000—teleconference.	**April 27**
Aggressive management of cardiovascular emergencies featuring the role of urgent echocardiography.	**May 1–3**
Nuclear cardiology for the technologist.	**May 6–8**
Recent advances in clinical nuclear cardiology featuring case review with the experts.	**May 9–11**
Pediatric cardiac catheterization update—1996.	**May 13–15**
Echocardiography: a clinical review—emphasis on TEE, stress echo, and Doppler hemodynamics.	**May 23–25**
Peripheral artery disease: contemporary strategies for diagnosis and therapy.	**June 3–5**
Advanced catheter ablation of cardiac arrhythmias.	**June 6–8**
Interpretative echocardiography: an advanced seminar in interpretation of two-dimensional, Doppler, stress, and transesophageal echocardiography.	**June 10–12**
Cardiovascular magnetic resonance imaging: an important technology of today, but a major approach of tomorrow.	**June 13–15**
Stent/Rotablator®/DVI: the new strategies for approaching the patient.	**June 24–26**

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 A.M.. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, in the Zamoiski Auditorium on Thursdays, 9:00–10:00 A.M. Info: 410-578-5528.

PHYSICIAN PLACEMENT SERVICE

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral Street
Baltimore, MD 21201
410-539-0872
1-800-492-1056

Physicians wishing to locate in Maryland are invited to submit a résumé to be kept on file with the Physician Placement Service. Candidates are requested to inform the Faculty when they are no longer available for consideration opportunities in Maryland.

MMJ announcements for physician placements in the classified advertisements are charged at the regular classified advertising rate.

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Baltimore, MD 21201-5585

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Parris N. Glendening - Governor of Maryland

Martin P. Wasserman, M.D., J.D., Secretary
Department of Health and Mental Hygiene

J. Mehsen Joseph, Ph.D., Director
Community Health Surveillance & Labs Admin

Ebenezer Israel, M.D., M.P.H., Director
Epidemiology and Disease Control Program



EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

201 West Preston Street, Baltimore, Maryland 21201 (410) 225-6700

February, 1996

Tuberculosis: Conquering Medicine's Airborne Albatross, Part II

Consider this:

- An estimated 10 to 15 million persons in the United States are infected with *M.tuberculosis* (tuberculosis infection) -- about 10 % of whom will develop active disease.
- An individual infected with tuberculosis (TB) has approximately a 10% **lifetime** chance of developing active disease.
- An individual co-infected with both TB and HIV has approximately a 10% **annual** risk of developing active tuberculosis.
- Preventive therapy substantially reduces the risk of developing active disease.

Epidemiology of TB:

Tuberculosis is a communicable disease spread via the air, and therefore the risk of becoming infected is strongly associated with (1) the probability of coming into contact with someone who has infectious disease, (2) the degree of infectiousness of the source case and (3) the mycobacterial load and anatomical site of the disease.

The risk of becoming infected with tuberculosis increases with the duration and intensity of exposure to an infectious person (i.e., someone living in the same household) and increases if the infected person has a productive cough with large numbers of bacilli on AFB smear.

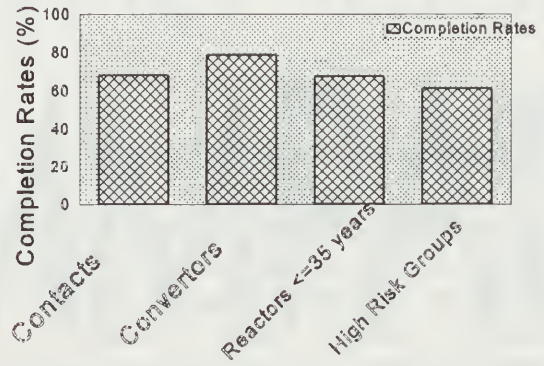
There is little current data on the prevalence of positive skin tests among members of the general population. Worldwide, males are more likely to become infected than females, and institutionalization of any type increases risk. Once infected, the risk of developing active disease is increased for the very young (birth -4 years), adolescents, the immunosuppressed, and those persons with a variety of medical risk factors, all of whom would benefit from a course of chemoprophylaxis. Anecdotal evidence indicates that poverty with all of its associated deprivations increases risk for all persons, regardless of race, age or sex.[1]

Clinical trials have shown that daily isoniazid (INH) therapy for 12 months reduces the risk of progression to TB disease by more than 90% in people with TB infection. There is evidence that 6 months of preventive therapy with INH also confers a high degree of protection (approximately 69% in patients who complete the regimen) against the progression of TB infection to TB disease. Every effort should be made to ensure that patients adhere to preventive therapy for at least 6 months, or for children (< 15 years) 9 months, and 12 months for HIV- infected persons.[2]

Significant effort is required on the part of care providers and patients to assure completion of preventive therapy because of the difficulty in

adhering to a lengthy regimen of medication, especially in asymptomatic persons with latent infection. Statewide completion rates of preventive therapy range from 61% to 79% depending on the reason for initiating chemoprophylaxis. See Figure 1. Completion Rates for Preventive Therapy Among Public Sector Patients, 1994.

Figure 1. Completion Rates For Preventive Therapy Among Public Sector Patients, 1994.



Infection can progress very quickly to active disease or may be delayed for many years. In the United States, approximately 5% of those infected will develop active disease within the first two years after becoming infected, and another 5% will develop disease later in life. Therefore, approximately 10% of all individuals infected will develop active disease at some point during their life. The remaining 90% will remain infected, but disease free. Certain medical conditions can increase the risk that infection will progress to disease as shown in Table 1.

Table 1. Conditions that Increase the Risk of Progression to TB Disease

- HIV infection
- Substance abuse (especially drug injection)
- Recent infection with *M. tuberculosis*
- Chest x-rays suggestive of previous TB without adequate treatment
- Diabetes mellitus
- Other medical conditions affecting nutritional or immune status
- Prolonged corticosteriod therapy
- Other immunosuppresive therapy

Finding TB Infection: The Mantoux Test:

The Mantoux tuberculin skin test is the standard method, recognized nationally, for identifying individuals with TB infection. It is not a perfect test, but it is the only method currently available for detecting TB infection. *False negative* results can occur because of inappropriate placement of the test, presence of overwhelming infection (including active TB disease), anergy, and recent live virus vaccination. *False positive* results can occur because of infection with Mycobacteria other than tuberculosis and prior BCG vaccination.

The multiple-puncture tests (e.g., the Tine® test), which were used extensively in the past, yield inconsistent results, with both false negatives and false positives. They do not deliver a standard dose of antigen, and the size of induration cannot be compared with previous or subsequent tests.

Multiple puncture tests have been particularly popular for pediatric populations, but in 1994 the American Academy of Pediatrics' Committee on Infectious Diseases policy statement recommended that multiple-puncture tests "are not appropriate tests to use for diagnosis, and their use should be severely restricted, if not eliminated". [3] The standard of care in Maryland is that all tuberculin skin testing be administered using a Mantoux test.

The Mantoux test is performed by administering an intradermal injection of exactly 0.10 cc of purified protein derivative (PPD) tuberculin containing 5 tuberculin units (TU) into either the volar or dorsal surface of the forearm. The reaction to the injection (millimeters of induration only, not surrounding redness) should be read within 48-72 hours by a trained health care worker and recorded in millimeters. Record "0 mm" if no reaction is present. Patients (or parents) should not interpret their own skin tests. Skin testing is not contraindicated during pregnancy. It is recommended that screening for tuberculosis be confined to those at highest risk for infection (see Table 2).

Table 2. High-Risk Groups that Should be Screened for Infection

- Persons with HIV infection or risk factors for HIV but with unknown status.
- Close contacts of a person with infectious TB.
- Persons with certain medical conditions.
- Persons who inject drugs.
- Foreign-born persons from areas where TB is common .
- Medically underserved, low-income populations, including some high-risk racial and ethnic groups.
- Residents of long-term care facilities (e.g.,; nursing homes, correctional facilities).
- Locally identified high-prevalence groups (e.g. migrant farm workers, the homeless).
- Health care workers.

There is currently no reliable method to distinguish the reactions caused by natural mycobacterial infections to those caused by BCG; therefore, a history of BCG vaccination is not considered a contraindication for administering a tuberculin skin test, nor is it considered when interpreting skin test results.

No substantive body of data exists indicating that anergy testing is helpful or clinically useful in the identification and/or treatment of TB in HIV or other immunocompromised individuals, and it is not recommended as a routine practice by the Centers for Disease Control (CDC) or the state of Maryland.

A Positive Test: Interpreting the Results:

The interpretation of tuberculin skin test results is based on criteria established by the American Thoracic Society, the CDC, and The Maryland TB Expert Panel. The different cut-points used to identify *skin test reactors* are intended to increase the likelihood that persons at high risk for TB will be identified, and that persons with reactions not due to *M. tuberculosis* infection will not receive unnecessary treatment. The cut-point is the measure of the size of the reaction which is considered "positive" for TB infection, and is determined by the certain conditions as outlined in Table 3. below.

Table 3. Tuberculin Skin Test Cut-Points

Cut-Points	Conditions
≥ 5 mm	♦ Children < one years old .* ♦ Persons with x-ray or clinical evidence of TB. ♦ Close contacts of person with active disease. ♦ Persons with evidence of old, healed TB. ♦ Persons with HIV or with risk factors for same; status unknown.
≥ 10 mm	♦ Children 1-4 years old.* ♦ Foreign-born persons from high prevalence countries. ♦ HIV seronegative IV drug abusers. ♦ Locally identified high-prevalence groups. ♦Persons with certain medical conditions. ♦Employees and residents of long-term care facilities. ♦Health care workers considered to be at high risk for exposure.
≥ 15 mm	♦ All others.

* The decision to administer preventive therapy to children who do not fall into one of the specific categories listed in Table 3, but who present with cut-points between 10 and 15 mm can be difficult. Consultation with a TB expert is advised.

A skin test *convertor* is a person who previously had a documented negative tuberculin skin test within the previous two years, and who now reacts positively to the tuberculin skin test according to the criteria which follows. Skin test conversion is defined as an increase in skin test induration of 10 mm or more for persons under the age of 35; and 15 mm or more for persons over 35 years.

In general, for health care workers, a skin test conversion is defined as a ≥ 10 mm increase in size regardless of age, unless the likelihood of exposure to TB is extremely low. Conversions are important because a person with a new TB infection is at higher risk for developing TB disease within the first two years of becoming infected.

Preventive Therapy:

Skin test reactors should have a chest x-ray taken and be evaluated for preventive therapy only after documenting a negative chest x-ray result and lack of symptoms. Priority candidates for preventive therapy, regardless of age, include those known or suspected of having HIV infection, close contacts of an infectious TB case, persons with a chest x-ray suggestive of previous TB, injecting drug users, persons with certain medical conditions, and recent skin test convertors.

Skin test reactors under age 35 should be evaluated for preventive therapy with highest priority given to the very young and adolescents. Over age 35, preventive therapy is used only if other risk factors for TB are present because the risk of INH - associated hepatitis increases with age.

The standard medication for preventive therapy is INH. For adults, INH is given for a minimum of 6 months Children should receive 9 months of chemoprophylaxis, and HIV infected individuals should be treated for at least 12 months. (See Table 4.) Preventive therapy for individuals over 35 years, during pregnancy, for persons with a previous history of TB, and for those who are contacts to drug resistant TB, or who are drug intolerant should be done in consultation with a TB expert.

Baseline liver function studies should be obtained on all individuals over 35 years, and on any individual with increased risk for hepatitis (i.e., alcohol or drug abusers) prior to beginning therapy. Increased incidents of fatal INH-induced hepatitis in black and Hispanic women of child-bearing age requires close monitoring of these individuals as well. Monthly monitoring of liver function is standard practice for any individual at high risk for hepatitis, and patients must be instructed to stop medications immediately and notify their physician if they experience any signs or symptoms of hepatitis (i.e., malaise, nausea, loss of appetite, dark colored urine, elevated liver enzymes, jaundice).

Under certain circumstances it may be preferable to have preventive therapy administered via direct observation by a trained health care worker. DOPT (directly observed preventive therapy) can be arranged, for some specific cases through the local health departments. Patients who are self-administering medications should never be prescribed more than a one month supply of INH at a time. Anyone receiving preventive therapy should be monitored for adverse reactions at least monthly. The Maryland Standards for Preventive Therapy for Tuberculosis are listed in Table 4.

Important Numbers:

- Division of TB Control, Epidemiology and Disease Control Program, Department of Health and Mental Hygiene, (410) 767- 6698
- State of Maryland Mycobacteriology Laboratory (410) 767- 6128
- http://www.charm.net/~epi1/
- epi:1@charm.net

References:

1.**Reichman,L. and Hershfield, E., ed.** Tuberculosis: A Comprehensive Approach. Marcel-Decker, Inc., 1993; 23-42

2.**Centers for Disease Control**, Third Ed. Core curriculum on Tuberculosis. U.S. Department of Health & Human Services. 1994; 36.

3.**Peter G., et.al., ed.** 1994 Red Book: Report of the Committee on Infectious Diseases. American Academy of Pediatrics, Elk Grove, IL.. 1993; 483

Table 4. **Maryland Guidelines for Preventive Therapy For Tuberculosis**

Situation	Length of Therapy	Regimen	Medical Monitoring
Standard - Adult	6 months minimum	INH 300 mg/day if given as single daily dose. Can be given twice weekly as 15 mg/kg/day not to exceed 900 mg if given as directly observed preventive therapy (DOPT).	Obtain baseline SGOT/AST if age over 35 years; or if there are other risk factors present for INH hepatitis i.e., chronic liver disease, daily alcohol use, IV drug abuse, or if any signs/symptoms of hepatitis are present. Obtain baseline SGOT/AST for black and Hispanic women of child-bearing age due to increased incidence of fatal INH-induced hepatitis in these groups. Consider monthly liver function tests in these groups. If SGOT is 3-5 times normal levels consider discontinuing the INH. Consult TB expert. Monthly signs and symptoms review by health care professional.
Standard - Children	9 months	INH 10-15 mg/kg/day not to exceed 300 mg/day if given as a single daily dose. Can be given twice weekly as 20-40 mg/day not to exceed 900 mg if given as DOPT.	Monthly signs and symptoms review by health care professional. Additional testing done at discretion of physician.
HIV positive	12 months minimum	Same dosing schedules as adult standard.	Same monitoring parameters as adult standard.

INH = isoniazid.

INH is the only drug approved by the FDA for preventive TB therapy. Alternative medications should be used only when susceptibility to the drugs has been confirmed by testing the *M. tuberculosis* isolate of the presumed source case, and only after consultation with a TB expert. Consult with a TB expert if considering preventive therapy in pregnancy, for individuals over 35 years of age, for individuals with a history or evidence of previous TB, and if dealing with drug intolerance or resistance.

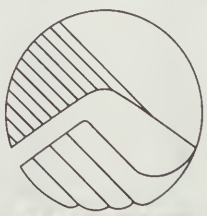
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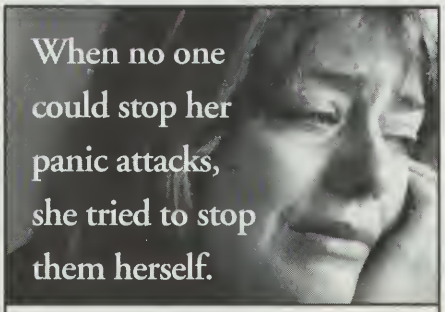
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It can be difficult to differentiate on clinical grounds between the two most common causes of persistent vomiting in infants: gastroesophageal reflux (GOR) and cows' milk intolerance. To determine **the differential diagnostic value of a noninvasive test of small bowel permeability**, Italian pediatric gastroenterologists studied 25 consecutive infants with persistent vomiting. All infants underwent a cellobiose/mannitol permeability study, upper endoscopy with esophageal and duodenal biopsy, and 24-hour esophageal pH study. In 24 subjects (96%), cows' milk intolerance and/or GOR was responsible for vomiting; 16 (64%) had GOR alone, 4 (16%) had GOR and cow's milk intolerance, and 4 had cows' milk intolerance alone. Biopsy results were abnormal in 19% with GOR alone and in 67% with cow's milk intolerance with or without GOR. The permeability test was abnormal in only 6% of the patients with GOR, but in 100% of those with GOR and cows' milk intolerance and 100% of those with cows' milk intolerance alone. The investigators conclude that the simple permeability study **is a good initial diagnostic test for rapid determination of cows' milk intolerance and should preempt more invasive studies in the evaluation of infants with persistent vomiting** (*Arch Dis Child* 1995;73:439-442).

In otherwise asymptomatic HIV-infected patients, fatigue and insomnia may be related to major depression rather than to HIV disease progression. Researchers at the University of North Carolina School of Medicine examined the relationship of fatigue and insomnia to indicators of major depressive disorder and HIV disease severity in 98 asymptomatic HIV-infected men and 71 uninfected homosexual men; of these, 82 infected and 64 uninfected subjects were available for 6-month follow-up. Results showed that fatigue and insomnia were associated with dysphoric mood and syndromal major depression, but not with low CD4 cell counts or poor neuropsychologic functioning. The authors conclude that, **although fatigue and insomnia may indeed be indicators of HIV disease progression, clinicians should not attribute these symptoms to HIV disease without a thorough evaluation of other depressive symptoms** (*Am J Psychiatry* 1995;152: 1776-1781).

Results of an observational study of elderly hospitalized patients support previous reports indicating that **delirium may be mistaken for depression in a substantial number of patients**. The study, conducted at a Veterans Affairs teaching hospital, involved 67 patients aged > 60 who were consecutively referred to the psychiatric consultation service for evaluation or treatment of a depressive disorder. Of the 67 study patients, 28 (41.8%) were found to be delirious. Most of the psychiatric consultations were initiated by residents (76%); others were requested by staff physicians (7.5%), nurses (14.9%), and a physician's assistant (1.5%). Referrers did not differ in their accuracy of diagnosis based on level of training or discipline. In only three cases had the referrer considered delirium in the differential diagnosis. The investigators point out that **mistaking delirium for depression may not only delay diagnosis and treatment of the underlying cause of the delirium, it may result in treatment with an antidepressant that may worsen the delirium** (*Arch Intern Med* 1995;155:2459-2464).

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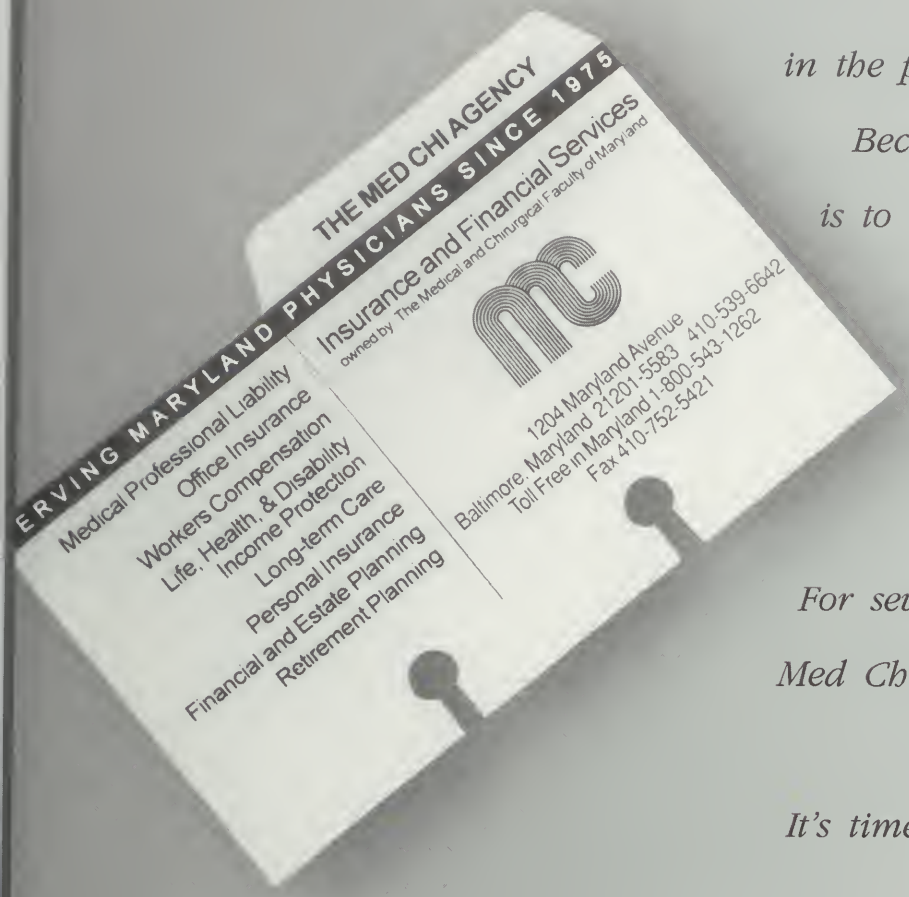
During the past 14 years, numerous studies have shown that antihypertensive treatment reduces the risk of stroke in the elderly. Most studies, however, have had insufficient statistical power to demonstrate that antihypertensive treatment prevents heart attacks or prolongs life. **A meta-analysis of 8 published randomized, controlled trials that investigated the effect of drug treatment of hypertension in the elderly** (>60 years of age) **indicates that antihypertensive treatment produces significant effects within five years on the risk for stroke and major coronary events and mortality rates** (*Arch Fam Med* 1995;4:943-950).

In 1992, the Agency for Health Care Policy and Research issued *Acute Pain Management: Operative or Medical Procedures and Trauma, Clinical Practice Guideline.* The guidelines addressed acute pain management after surgery, medical procedures, and trauma. One year after the guidelines were released, investigators at Beth Israel Hospital in Boston surveyed U.S. hospitals to determine the status of pain management and U.S. adults regarding their attitudes toward postoperative pain management. Results of the hospital survey indicate **formal pain management programs are becoming more prevalent in hospitals (42% have programs and 13% are planning to).** Results of the survey of **adults who had undergone surgery**, however, indicated most **believe pain is a necessary accompaniment of surgical procedures; 77% reported having pain after surgery, 80% reported that postoperative pain was moderate to extreme, and almost three quarters reported continuing pain after receiving pain medication. More than half said postoperative pain was their primary fear in facing surgery** (*Anesthesiology* 1995;83:1090-1094).

Although several treatments are available for bacterial vaginosis, the two newest options (metronidazole vaginal gel and clindamycin vaginal cream) have not been simultaneously compared or studied as extensively as oral metronidazole. Results of a recently reported comparison study (*J Fam Pract* 1995;41:443-449), however, indicate that **metronidazole vaginal gel and clindamycin vaginal cream are as effective as oral metronidazole in curing bacterial vaginosis.** Results were available for 72 women identified as having bacterial vaginosis who were randomly assigned to one of the three treatments. Cures were determined by clinical criteria or DNA testing.

In patients with coronary artery disease and mild to moderate cholesterol elevations, monotherapy with a 3-hydroxy-3-methylglutaryl-coenzyme A reductase inhibitor (pravastatin) reduces progression of coronary atherosclerosis and myocardial infarction. In a 3-year study, 408 patients with coronary artery disease and LDL cholesterol levels $\geq$130 mg/dl but <190 mg/dl despite a fat-restricted diet were randomized to receive pravastatin (Pravachol) or placebo. Pravastatin decreased total and LDL cholesterol and triglyceride levels by 19%, 28%, and 8%, respectively and increased HDL cholesterol by 7%. Atherosclerosis progression was reduced by 40% and risk of myocardial infarction was reduced by 60%, with benefits beginning to emerge after 1 year (*J Am Coll Cardiol* 1995;26: 1133-1139).

To obtain a free *Glossary of HIV/AIDS-Related Terms* or information on new treatment guidelines, call 1-800-HIV-0440. The glossary is published by the HIV/AIDS Treatment Information Service sponsored by the Agency for Health Care Policy and Research, Centers for Disease Control and Prevention, Health Resources and Services Administration, National Insitutes of Health, and the Substance Abuse and Mental Health Services Administration. The service is offered through the CDC National AIDS Clearinghouse.



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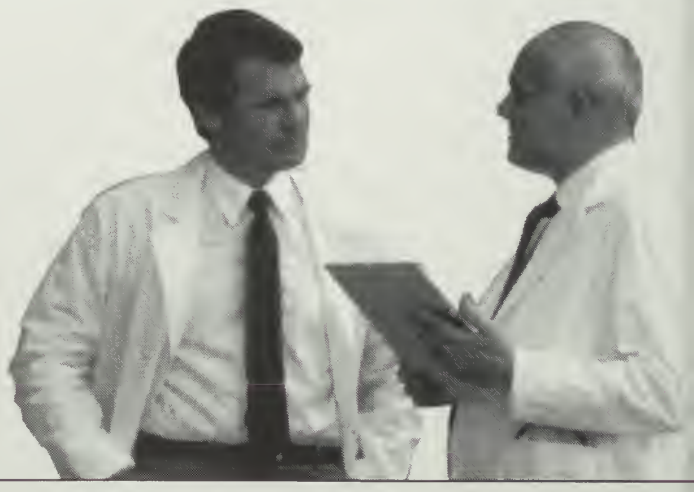
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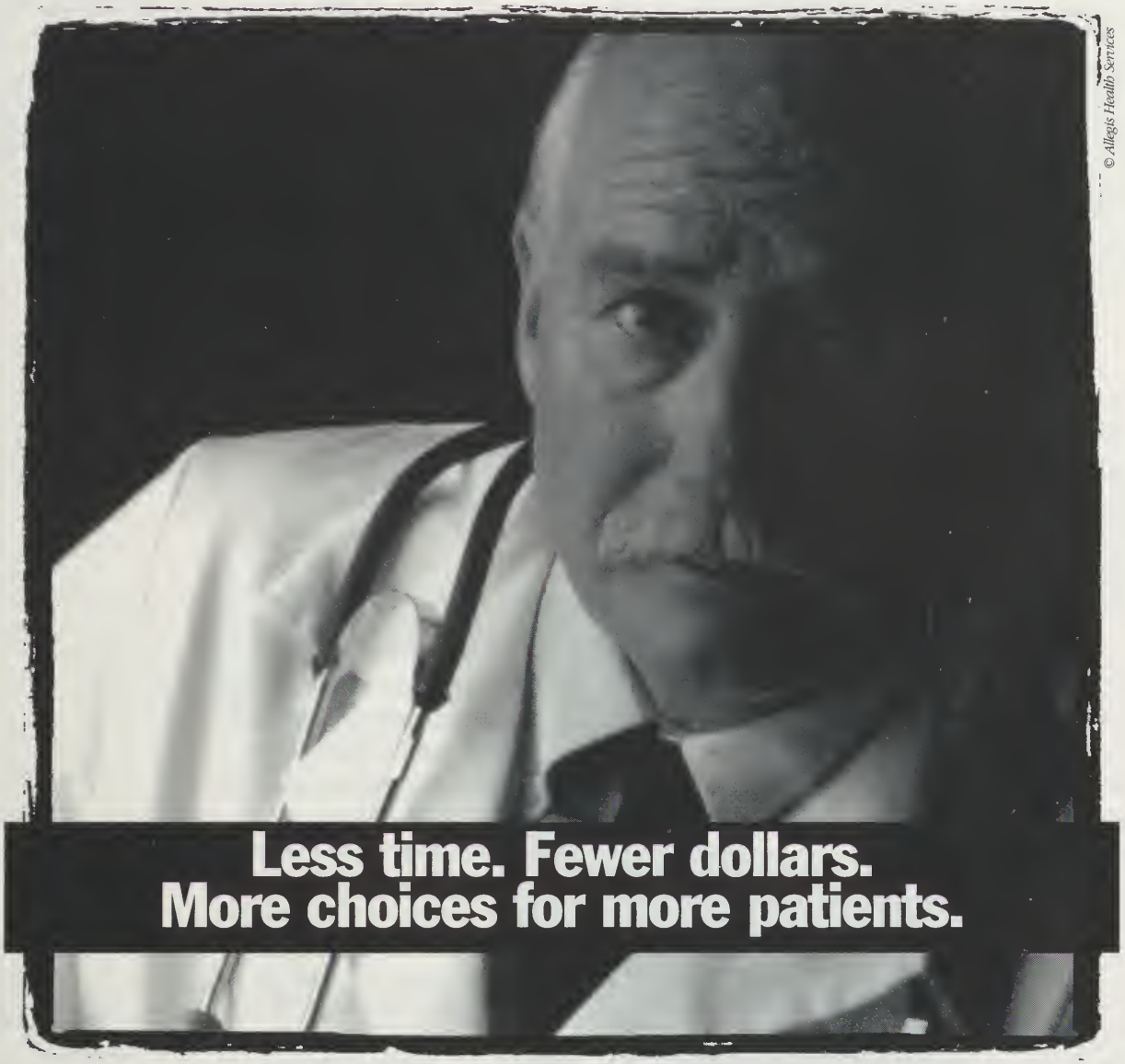
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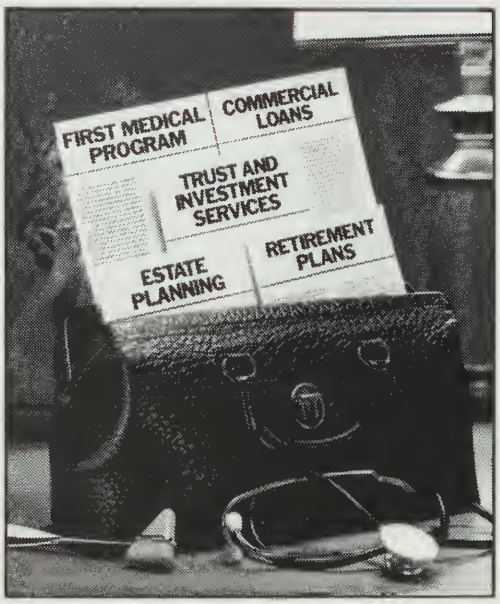
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Chief Executive Officer's Newsletter

March 1996

Southern Regional Meeting slated for March 28

Join co-hosts Guillermo E. Sanchez, M.D., and Hilary T. O'Herlihy, M.D., for the President's Southern Regional Meeting to be held on Thursday, March 28, 1996, at the Jaycee's Community Center in Waldorf, Maryland. The topics of discussion will include the legislative outlook for 1996 in Maryland, federal Medicare/Medicaid issues, physician-controlled managed care, HMO quality assurance, and practice parameters. For those interested in attending this down-to-earth discussion and dinner, please call Carol or Joan in Med Chi's education office at 1-800-492-1056 no later than March 22.

Med Chi Meetings

The 1996 Med Chi Annual Meeting will be Thursday, April 25, through Saturday, April 27, at the Turf Valley Hotel & Country Club in Ellicott City, Maryland. To make your room reservations, call Turf Valley at 410-465-1500 and indicate that you will be attending the Med Chi Annual Meeting. Room rates are $75.00 for a single and $85.00 for a double. **Reservations must be made by Friday, March 15, 1996.** For further information about the annual meeting, see the president's letter immediately following this newsletter.

This year's semiannual meeting will be held Friday, September 6 – Sunday, September 8, 1996 at the Sheraton Ocean City Resort and Conference Center in Ocean City, Maryland. Room rates are $135.00 per night for single/double occupancy (tax and incidentals not included). To reserve a room, call the Sheraton at 1-800-638-2100, and tell them that you are attending the Med Chi meeting. Reservations must be made by August 5, 1996, however, Med Chi's block of rooms may fill prior to this date.

Med Chi goes on the Internet

Med Chi now has a stop on the information superhighway! If you want to know what's on the annual meeting program, where and when the president's regional meetings are, what services the library offers, and what upcoming events are, point your web browser at http://www.access.digex.net/~medchi/index.html. The tilde "~" symbol usually is located to the left of the "1" on your computer keyboard.

The web site is still in development, so I hope you will give us plenty of feedback. Please e-mail Margaret Burri, Library Administrator, with your suggestions, at mnburri@wam.umd.edu or call her at 410-539-0872 or 800-492-1056.

1996 Med Chi Membership Directory *available*

The *1996 Med Chi Membership Directory and Allied Health Professional Listing* was mailed to all active Med Chi members with this March 1996 issue of the *Maryland Medical Journal*. If your membership status is emeritus, emeritus-at-large, affiliate, associate, student, or resident, you can request a free copy of the directory by calling Wanda Griebel at 410-539-0872 or 1-800-492-1056, ext. 330. The directory is available to non-Med Chi members for $100.

Maryland Cancer Control Physician Reminder System Project

On February 15, 1996, Med Chi began work on a project that will help primary care physicians in Maryland enhance their preventive care routine. Med Chi is replicating the Cancer Prevention in Community Practice (CPCP) intervention developed by Allen J. Dietrich, M.D., of Dartmouth Medical School. The CPCP intervention is a systematic, multi-component approach that is designed to enhance such preventive services as screening for breast, cervical, and colorectal cancer and to improve counseling levels in nutrition and smoking cessation.

A trial of the intervention in New England practices showed provision of target services increased by as much as 20% to 33%. Med Chi will send office facilitators to individual practices to help practice staff assess their current preventive care routine, introduce the "office system" concept of preventive care, and assist the practice in implementing the office system over time. Med Chi plans to start offering the interventions, which are funded by the Maryland Department of Health and Mental Hygiene, in May 1996.

Med Chi makes Nobacco News

The Tobacco Control Clearinghouse's (TCC) efforts to tackle tobacco use were profiled in the Winter 1996 issue of the AMA's *Nobacco News*. The Clearinghouse, founded at Med Chi, was featured because of the unique way its education programs target physicians rather than the smokers themselves. The TCC disseminates information on in-state cessation programs and self-help cessation materials in addition to distributing general interest literature on cessation for the public and more clinically-based material for physicians and other health care workers. Also, to reach physicians directly, Med Chi offered continuing medical education courses in cessation counseling techniques at the annual and semi-annual meetings last year.

Med Chi cuts cellular service deal

Med Chi has negotiated a deal for cellular service through Bell Atlantic NYNEX Mobile's Washington/Baltimore region. Local coverage includes Maryland and the Eastern Shore, Northern Virginia, and Washington, DC. The plan, for Med Chi members only, features a $7.99 monthly access rate, $0.36 per minute during peak hours, $0.16 per minute during off peak hours, and no activation fee under a two year contract. For further information, contact your local Bell Atlantic account executive at 410-719-3225.

NIH announces Consensus Development Conference: Cancer of the Cervix

The National Institutes of Health is sponsoring a Consensus Development Conference focusing on cancer of the cervix during April 1-3, 1996, at the Natcher Conference Center in Bethesda, Maryland. The conference is open to the public and will focus on treatment and quality of life issues for women with cervical cancer. For women with early-stage disease, these include pretreatment imaging, the role of lymph node resection, primary surgery and radiotherapy, and adjuvant treatment. For women with advanced-stage disease, critical issues include optimal radiotherapy techniques, neoadjuvant and concomitant chemotherapy, pelvic exenteration, and palliative treatment.

The purpose of the conference is to reach agreement on cancer of the cervix. Key questions to be addressed are:

I. How can we strengthen efforts to screen for and prevent cervical cancer?
II. What is the appropriate management of low-stage cervical cancer (FIGO stages I-IIA)?
III. What is the appropriate management of advanced-stage and recurrent cervical cancer?
IV. What are new directions for research in cervical cancer?

To register for the Consensus Development Conference on Cancer of the Cervix or to obtain more information, contact Annette Besignano of Technical Resources International, Inc., at 301-770-0610.

DHMH presents Board of Physician Quality Assurance conference

The Maryland Department of Health and Mental Hygiene is presenting a conference on *"Board of Physician Quality Assurance: The Reporting and Investigative Process"* on Friday, May 17, 1996, at the Columbia Hilton. This education event will run from 8:30 a.m. to 3:30 p.m. and will improve everyone's understanding of the reporting requirements on actions taken against physicians in Maryland and the procedures the Board of Physician Quality Assurance follows in its process. If you have any further questions, contact DHMH's Education and Training Coordinator Roderick G. Clark at 410-764-2492.

MD Workers' Compensation Medical Fee Guide *available*

The Workers' Compensation Commission of Maryland has just released the new *Maryland Workers' Compensation Medical Fee Guide* at a cost of $65. A computer version of the guide is also available for $295. It is a completely revised and reformatted publication incorporating the 1995 CPT codes. The guide can be ordered from the publisher, Medicode, Inc., by calling 1-800-765-6023.

March: Rosacea Awareness Month

March has been designated as Rosacea Awareness Month by the National Rosacea Society in order to raise public awareness and encourage early detection and treatment of this facial skin disorder. The potentially disfiguring disorder is estimated to affect 13 million Americans and the incidence of rosacea is rapidly increasing now that the baby boom generation has entered the most susceptible age.

As part of Rosacea Awareness Month, the National Rosacea Society has established an information hotline. Rosacea sufferers or people who suspect they may have the condition can call 708-382-8971 to receive a public service booklet and *Rosacea Review*, a publication for rosacea patients. The society also provides a physician referral service to supply people with the names of dermatologists who treat the condition in their areas.

Beginning this month, the National Rosacea Society will inaugurate its home page on the World Wide Web as a new information service. *Rosacea Review* and a broad range of information about rosacea will be available online at http://www.rosacea.org.

Medical Business Association launched online

The Medical Business Association (MBA), conceived to help physicians with their business interests, has been launched online. MBA's research study of 620 randomly selected physicians showed that a third of physicians are online. MBA has established a page on the World Wide Web to facilitate business communication among physicians. A part of the page is the Physicians' Lounge, where physicians can chat online. The MBA page also has a physician recruitment section, an ongoing physician attitude research survey, the results of the preliminary study (cited above), and links to other sources of information about business management and venture capital.

As a result of the study, MBA is in the process of launching two seminars, The Silver Lining™ and BusinessRx™ (both described on the Web page). The Silver Lining helps physicians prepare for the personal and financial aspects of retirement. BusinessRx teaches physicians business skills with an emphasis on computer skills, negotiating skills, and business competitive strategies.

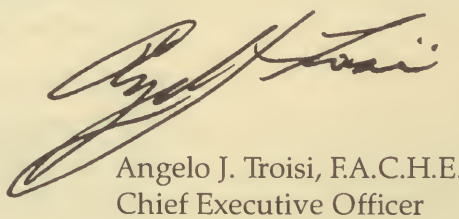
For more information on MBA, contact Mark Heitner at http://www.medbzasn.com/MBA or by phone at 505-828-2855.

DC managed care program for disabled children

The District of Columbia received federal permission to establish a managed care program for disabled children who qualify for Medicaid. The DC program is a three-year demonstration program that began December 1 and allows disabled children to remain in the current Medicaid fee-for-service program or enroll in a managed care plan run by Health Services for Children with Special Needs, Inc. This organization is a newly formed, nonprofit managed care corporation owned by HSC Corp.

The enhanced benefits offered by the managed care plan will include transportation and telephone services. The plan will receive a monthly capitated rate for each member served and initially will pay participating providers negotiated fee-for-service rates.

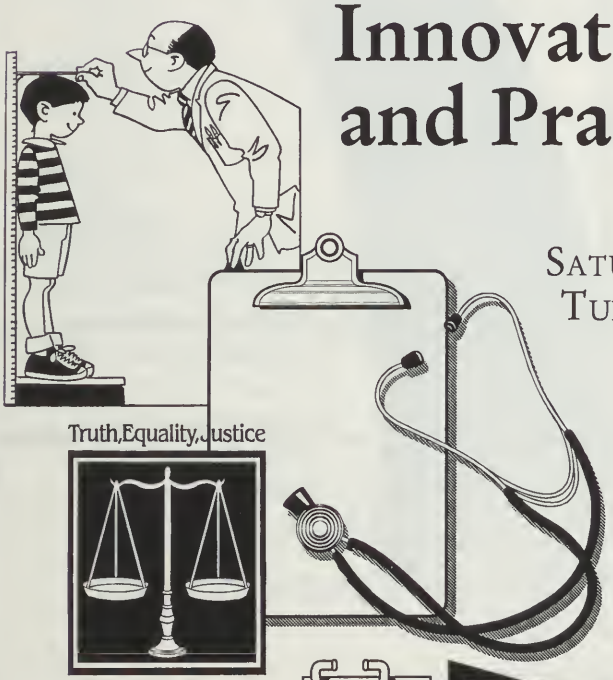
The waiver was approved by HCFA under Section 1115(a)(1) of the Social Security Act. (BNA's *Health Care Policy*, October 23, 1995.)



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Officer

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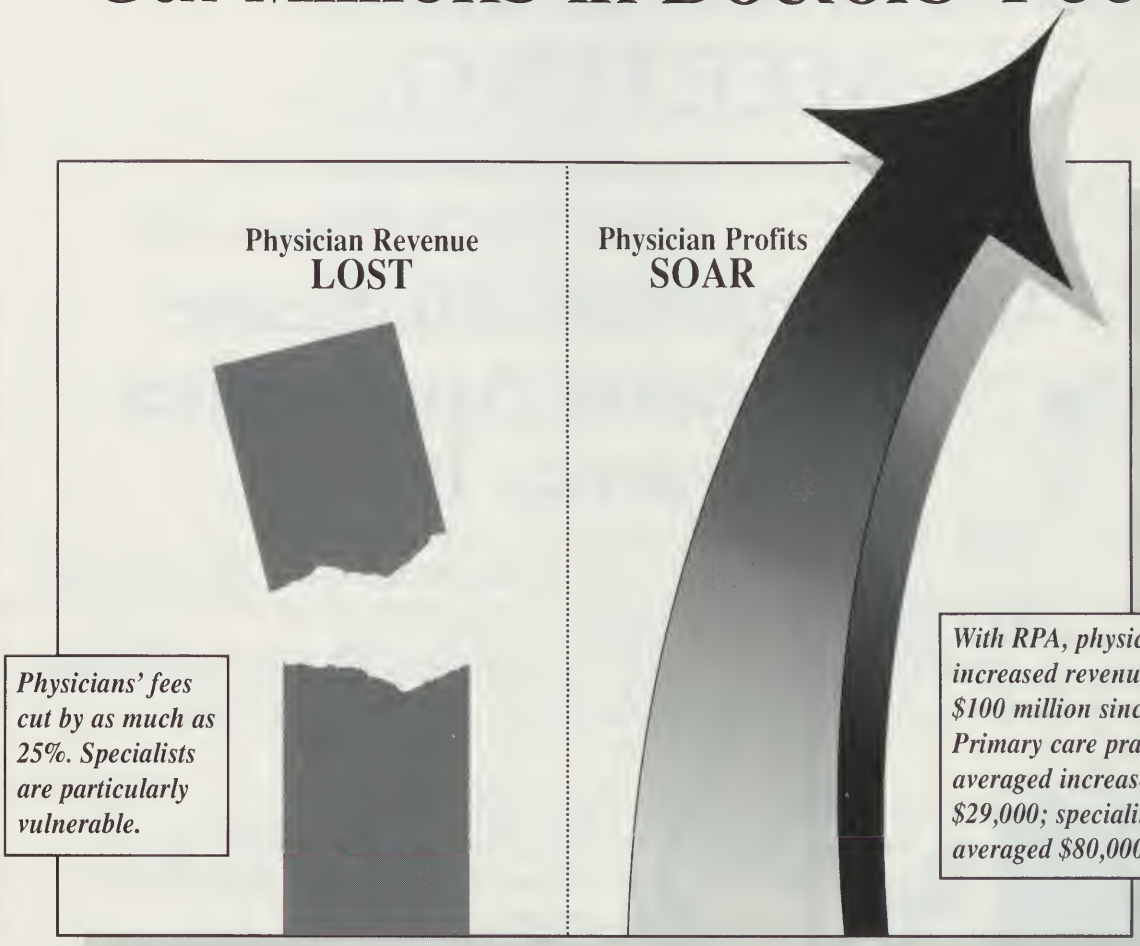
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Speak Out

Physician strategies in a managed care environment

The future of health care will be managed care. Congress and state legislatures are fostering and promoting managed care as the public policy answer to the problem of controlling health care costs while providing essential medical services to the general public. Small physician practices centered around community hospitals are being replaced by large corporate providers of health care services that retain physicians as employees or independent contractors.

As health care evolves into a modern business, physicians see their control and status within their own industry being degraded. Most engineers once worked on a fee-for-service basis and were organized into small partnerships. Today, most are mid-level employees of large corporations. Independent pharmacists are increasingly being bought out by or losing their markets to retail chains. Like engineers, pharmacists are becoming mid-level employees, not principals, in their own industry. The same fate awaits physicians if they fail to organize, pool their resources, and own the means of production, i.e., the managed care organizations and outpatient facilities that will dominate U.S. health care.

Wall Street understands that health care is one of the premier financial and business opportunities for the next decade. The play is simple. Market forces and a public policy agenda dedicated to controlling health care costs are causing health care providers to consolidate into larger organizations that eliminate duplicative overhead, realize the efficiencies of economies of scale, and apply technology to improve operational efficiency and labor costs. A large portion of the assets of health care are owned by small physician practices and community hospitals. Nonphysician capitalists understand that these assets can be cheaply acquired because the owners of those assets, physicians and community hospitals, fail to understand their true value, especially when the assets are consolidated into a single corporate organization. Because the owners are unable or unwilling to organize their small operations into larger, competitive entities, nonphysicians are buying medical practices for hundreds of thousands of dollars in order to build companies with hundreds of millions of dollars in assets and revenues. Physicians are literally selling their professional future and industry to nonphysicians. Although physicians have long feared becoming employees in their own

Speak Out

industry, we are making our worst professional fear a reality when we allow nonphysicians to purchase our assets or reduce us to mere contract workers or employees.

Why are hospitals, business entrepreneurs, and HMOs buying physician practices? They are not interested in increasing your gross income. They would like to reduce it. They are interested in the strength of your pen. Only physicians can prescribe everything needed in the medical industry (drug prescriptions; intravenous infusions; laboratory, imaging, and other diagnostic studies; hospitalization; nursing homes; rehabilitation; etc). If all the above are controlled and directed, huge profits can be generated. Although managed care is redefining how physicians and patients interact, the basic element that will allow physicians to maintain control is the special relationship between patients and physicians, where there is trust, sincerity and compassion.

To cope with managed care, many physicians have formed single or multispecialty independent physician associations (IPAs). Forming an IPA, however, is not sufficient to be competitive. The IPA should include other activities that will benefit the group.

PCCO (physician-sponsored coordinated care organization) is a new addition to the jargon of managed care environments. PCCOs can be involved in any or many activities, including

- contracting with HMOs;
- contracting directly with employers through the self-insured program;
- forming a third party administration company (TPA);
- merging physician practices;
- establishing a management services organization (MSO);
- establishing an information system management (ISM);
- creating vertically integrated medical providers;
- establishing a physician-owned HMO;
- lobbying U.S. senators and representatives and state legislators to allow physicians to contract directly with Medicare and Medicaid (the AMA and Med Chi are currently working on this initiative).

The massive reconciliation bill Congress sent to President Clinton was intended to eliminate the federal budget deficit by 2002. Included in the bill were some of the AMA-backed proposals dealing with antitrust relief, medical savings accounts (MSAs), and provisions to allow PCCOs to contract directly with Medicare patients, without being insurance companies.

Medicare beneficiaries now have two choices. They can stay with traditional Medicare coverage or switch to a private managed care plan, which they

are being encouraged to do. Physicians are rapidly losing Medicare patients to HMOs via the latter plan.

A third choice now being proposed is the tax-free medical savings account (MSA) coupled with catastrophic-only health coverage.

An MSA would allow Medicare beneficiaries to choose their physicians and other providers. It would apply primarily to office visits and expenses totaling less than a certain dollar amount (e.g., $6-10 thousand). Expenses beyond that amount would be covered by the catastrophic-only health coverage. Specifics of the proposal are still being negotiated.

Although some physician groups are contracting with HMOs, the practice is not lucrative; in many cases the physicians out-bid each other for the lowest capitation. Physician groups that do such contracting must understand actuarial figures and contract accordingly. As we compete for HMO business, we are enriching the HMOs at our own expense and weakening our market power.

A TPA is the entity that usually approaches employers. TPA brokers market directly to employers, advising them on the best price and the quality and type of health, life, and disability insurance available. Most HMOs avail themselves of the brokers' services to obtain contracts. Employers can choose the maximum amount of money they will pay per year on their employees' health coverage; beyond that amount, the employer's automatic reinsurance takes over. All self-insured programs are required to have automatic reinsurance.

The most popular strategy is to merge physician practices. Merges increase value to each practice and allow individual physicians to continue practicing in their own office. Merges also enable the group to do in-house laboratory and other ancillary services. To be profitable, however, the group should use an information system that allows individual physicians to bill under one number. Income from ancillary services traditionally is divided equally among the members or according to stock value, not according to the number of referrals.

Large group practices or IPOs allow the physicians to operate more efficiently, reduce duplicative overhead, and realize the true value of their practice assets. The thrust of legislative initiatives is to force health care providers to consolidate into more efficient, cost-effective organizations. In addition to competing more effectively in the managed care market, a large, integrated practice can serve as the foundation for a physician-owned HMO.

Centralized management and information systems are vital to the merged group practice. The information system must be easily expandable to meet the changing needs and demands of the industry as well as to track profit and

Speak Out

expense. Available software can centralize records, allowing staff to access accurate insurance data and patient account information and physicians to access patient files, including history, diagnostic studies, diagnosis, treatment plans and guidelines, medications, allergies, etc. Security barriers prevent unauthorized access to sensitive information. The data collection is controlled and generated in the physician's office. Such data, which differs from that collected by insurance companies and hospitals, can be used to determine medical outcomes and cost, thus giving the physician group the credibility and strength to contract with HMOs.

A physician-owned HMO can also succeed. In Maryland, we have physicians with MBA degrees from Wharton and other reputable business schools, as well as physicians who have the ability and background to put together or be part of a team to develop and own an HMO. The cost to enter the HMO business is approximately $2.5 million. If 7,000 Med Chi members each gave $3,000 plus a note for $12,000, this would give $21 million in cash plus access to $84 million in credit if needed. It can be done.

In the meantime, we should continue to promote physician-friendly laws that will encourage the good practice of medicine in a managed care environment, where quality and cost containment can be achieved. We can still regain our freedom to practice medicine according to the oath we have subscribed to and not be controlled by economic factors alone. Let us cooperate and work together for our common good so we can protect the future practice of medicine for the sake of our patients.

Zorayda Lee-Llacer, M.D.

Dr. Lee-Llacer is the medical director of critical care medicine at Doctors Community Hospital in Lanham, Maryland. ■

Speak Out is a *Maryland Medical Journal* department created to enable readers to voice their opinions, convictions, or feelings about medicine and related subjects in a more lengthy format than is normally afforded by a letter to the editor. Please send Speak Out submissions, as well as letters to the editor and manuscripts, to the Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585.

LETTERS TO THE EDITOR

Nostalgia revisited

"Maryland Physicians During World War II: A Portrait" (*MMJ* November 1995) reflects in its presentation the caring effort by Dr. Marion Friedman and Mary Ann Ayd. I am grateful to them for bringing back a great and pleasurable experience for me.

In 1941, I was a sergeant in the hospital laboratory at Fort Meade, Maryland (where I first met Dr. Ted Woodward, who was kind enough to give me a ride from time to time to Baltimore). I was accepted to the University of Maryland School of Medicine in 1939, but deferred entrance for financial reasons. Before starting medical school, I enlisted to "get my year over with," but Pearl Harbor changed that.

A trio of Hopkins physicians headed by Dr. William B. VandeGrift invited me to join the 118th General Hospital as a non-commissioned officer to organize and be in charge of the laboratory. To this end, I was given a letter of credit. Returning to Baltimore, I naively purchased glassware, incubators, centrifuges—buying as if we would set up someplace like Chicago or even Baltimore.

Our trip to New Zealand and then to Australia was indeed on a ship named the *West Point*. Its original name, however, was the *United States*, not the *America*. As we lined up to board the ship, we saw a doctor climbing up the gangplank carrying a tennis racquet and other sports equipment. Although everyone laughed, when we got to Australia, sure enough there was a tennis court near the university. The physician's name was Walter Winkenwerder.

When we did set up in Sydney, Australia, it was in an upscale, well-staffed laboratory. We had rabbits for serology, paraffin sections for pathology, and more. Maj. VandeGrift was in charge. One of my responsibilities was to make the eosin and Wright's stains and read the differentials. There was a period when, looking at the slides under the microscope, I saw what seemed to be a clustering of debris. I experimented with the stains and finally in exasperation asked the physicians to look at the slides. They also tried to work out the problem, but to no avail. I decided to take some of the slides to the Australian army laboratory. The corporal in charge put the first slide under the microscope and said, "This is obvious. It is malaria." Even though the patients in our unit were overwhelmed with malaria, no one in our unit had picked it up on the slides.

While we were in Sydney, we often received casualties that had been evacuated to us. Everyone—enlisted men as well as officers—pitched in. Our work often involved removing plaster casts that had hurriedly been put on broken limbs, and sometimes the odor of gangrene would be quite obvious. I recall Paul Kunkel feverishly doing triage, wearing his triangular cap with the point pulled over his nose, seemingly oblivious to the smell.

I had an interest in psychiatry and spent my free time learning by working with Capt. Henry Fox. Henry was responsible for the wards and Capt. Richard Lambert did the hospital consultations. At the end of the year, Jerome Frank and two other psychiatrists joined us. We had seven psychiatric wards, two locked and five open. When psychotic patients became severely disturbed, everyone on the ward staff would be

needed to help restrain them by inserting rectal catheters to introduce paraldehyde for sedation. In the process, those administering to struggling patients ended up reeking with the odor of spilled paraldehyde.

The physicians, knowing I was due for medical school, were most gracious and generous. When any of the doctors came across an interesting case, they would call me in. Henry Fo insisted that I learn psychiatry by observation and not by reading. He was also kind enough to make me a coauthor for my first publication, "Psychiatric casualties in a general hospital overseas," which was published in the *American Journal of Psychiatry*. The entire experience was like an apprenticeship.

Dr. James Bordley, III, a most gentle, yet formal man, made repeated attempts on his own, but always asking me if I approved, to get me back into medical school. He first tried to get me into the Army Specialized Training Program, but Gen. MacArthur's headquarters said they had never heard of the program, even though Dr. Bordley had included a page from the *Journal of the American Medical Association* describing it. He tried again, but again permission was denied.

Later in 1944, I was nonetheless assigned to supervise 4 "psychotics" and 200 "neurotics" on a transport back to the United States—another attempt by Drs. Bordley and Fox to get me back to the States to negotiate medical school. Instead, I was reassigned, given the rank of second lieutenant in the Sanitary Corp, and sent to Panama for 10 weeks of malariology research.

Returning to the United States, I had some leave and went to visit Washington, DC. I had heard that Josh Billings was in the Surgeon General's office, so I went to visit him. He asked me about my next assignment. When I told him I didn't know, he made a telephone call. His face went white and he excused himself. He soon brought out Dr. Hugh Morgan and told him that I was going to be sent overseas again and about my experience in malariology. It was then arranged that I would be sent to do schistosomiasis research in Swananoah, North Carolina. While I was there, I was reunited, with mixed feelings, with some of my enlisted men friends who had contracted the disease on Leyte and were patients there.

At the end of October 1945, the point system for release of officers was announced. The hospital's commanding officer was a University of Maryland graduate who processed me out in one day when he heard that a telephone call to the dean confirmed my acceptance into medical school. I started classes the next day, still in uniform. School had already started.

After I graduated medical school and completed my psychiatric residency, there was a period when I taught at University and lectured at Hopkins. Each time I went to Hopkins for my lecture, I would make a stop in the men's room on the first floor, just past the statue of Jesus. Inevitably, Dr. I. Ridgeway Trimble would come in and stand at the urinal next to mine. Each time, he would ask, "How are you, Sergeant?" I would say "fine," Then he would ask what I was doing. I would tell him I had finished medical school and now I was coming to lecture at Hopkins. He would respond, "Fine, that's great." For many weeks when I would visit Hopkins, Dr. Trimble and I would repeat the very same conversation.

Nathan Schnaper, M.D., F.A.C.P., L.F.A.P.A.
Dr. Schnaper is a professor of psychiatry and oncology and head of psychsocial services at the University of Maryland Cancer Center. ■

Letters To The Editor

The editorial board of the *Maryland Medical Journal* welcomes comments, criticisms, recommendations, and observations from all its readers. Please submit letters to

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Returned With Interest

A 1943 graduate of The Johns Hopkins University School of Medicine, I served in the medical corps of the U.S. Navy during World War II. Dr. Marion Friedman and Mary Ann Ayd are to be warmly commended for their editorial expertise so evident in the November 1995 issue of *Maryland Medical Journal*.

Early in 1945, our Naval field hospital had landed on the island of Leyte in the Philippines for transfer to the combat fleet that was to take us to Okinawa. The supplies and equipment were unloaded on Leyte after midnight; personnel were taken ashore early the next morning. When we arrived at the assigned area on the beach near Dulag, we found it empty except for a few battered crates that had once contained laboratory alcohol. Everything else had been skillfully diverted into other hands by our sly compatriots in the Army. Our entire hospital had been absorbed into their trading network.

Our commanding officer was furious. He turned to the toughest regular Navy chief in sight and roared, "McCarthy, go get our stuff back—right now, on the double! Take as many men as you need." The chief saluted, gestured to an enormous truck driver from Texas, and set off up the beach on foot. They quickly located the two Navy jeeps, in new gray paint impossible to conceal among the Army vehicles, and returned late in the day with a few boxes and lots of hard-won information.

Day after day, from dawn until dusk, McCarthy and Hunt, with a few pharmacist's mates, scoured the island behind the front lines. Each evening the pile of boxes and crates in the bivouac area grew larger.

McCarthy and his crew came in early one afternoon about 10 days later. The chief strode toward the headquarters tent, red-faced and sweating under the tropical sun, and stood at attention before the CO's field desk. Saluting, he said, "We've finished our assignment, Commander. I'm pleased to report, Sir, that the boys and I figure we have recovered exactly 118% of our lost property."

The CO returned the salute, rose to his feet without a word, smiled benevolently, and shook hands with the triumphant chief.

My only contact with the Maryland hospitals was with Hopkins' 118th General Hospital during the Leyte operation. Our Naval hospital unit sent several of us, all junior medical officers, on an administrative mission from our bivouac area at Dulag to the town of Tacloban. Quite unexpectedly, I encountered Dr. Fred Bang walking alone down a muddy road and learned that the Hopkins unit was close by. I gave him a lift in my Navy jeep and subsequently got permission to spend two weeks working in the hospital laboratory. Fred was clearly one of the Hopkins greats who served in World War II.

When I went in the medical corps of the Navy halfway through World War II, I found myself classified as a tropical disease research person, mostly on the strength of my interest in malaria and some student field research while I was in college and medical school. On the way to the Pacific Theater to join the prestigious Naval Medical Research Unit No. 2 created by the Rockefeller Foundation, I soon found that I was to be shunted into a military government hospital to meet some strategic priorities. My field hospital went to Okinawa with the initial assault force in 1945, cared for some 1200 patients at a time throughout the battle, was the command post for investigation of one epidemic after the other, and conducted the restoration of the Imperial Japanese leper colony on that island. My associates in the NAMRU 2 finally caught up with us after most of the excitement was over.

In 1967, then on the medical faculty of the University of Hawaii, I was sent again to Okinawa on a military contract assignment. We successfully fashioned an American style residency program at the major civilian medical center, which was the lineal descendent of our 1945 military government hospital.

Thomas W. Simpson, M.D., F.A.C.P.
Dr. Simpson is an associate professor emeritus of medicine and pathobiology at The Johns Hopkins University School of Medicine. ■

Richard E. Chaisson, M.D., and Richard D. Moore, M.D., M.Sc., are among the authors of a study indicating that among patients with HIV infection who received medical care from a single urban center, there were no differences in disease progression or survival associated with sex, race, injection-drug use, or socioeconomic status. Differences found in other studies may reflect differences in the use of medical care (*N Engl J Med* 1995;333:751–756). Drs. Chaisson and Moore are associate professors of medicine at The Johns Hopkins University School of Medicine.

Kathy J. Helzlsouer, M.D., M.H.S., Gary B. Gordon, M.D., Ph.D., and George W. Comstock, M.D., Dr. P.H., are among the authors of a study of the association between endogenous hormones and development of ovarian cancer. Results indicate that low serum gonadotropin levels or high androgen levels increase ovarian cancer risk. These findings do not support the hypothesis that pituitary gonadotropins increase the risk of ovarian cancer (*JAMA* 1995;274:1926–1930). Dr. Helzlsouer is an associate professor of epidemiology and Dr. Comstock is a professor of epidemiology and Alumni Centennial Professor at The Johns Hopkins University School of Hygiene and Public Health. Dr. Gordon is an associate professor of oncology at The Johns Hopkins University School of Medicine.

Alan W. Partin, M.D., Ph.D., John B. Adams, M.D., Robert G. Moore, M.D., and Louis R. Kavoussi, M.D., are the authors of a study to determine the feasibility and applicability of using surgeon-controlled robotic arms as a substitute for surgical assistants during urologic laparoscopic surgery. Results, published in the *Journal of the American College of Surgeons* (1995;181:552–557), indicate that use of remote-controlled robotic arms is feasible and that the potential cost effectiveness warrants further investigation. Drs. Adams and Moore are instructors of, Dr. Kavoussi is an associate professor of, and Dr. Partin is a postdoctoral fellow in the department of urology at The Johns Hopkins University School of Medicine.

Lawrence M. Nogee, M.D., an assistant professor of pediatrics at The Johns Hopkins University School of Medicine, is among the authors of a case report describing a full-term infant with severe respiratory disease who was found to have a partial deficiency of the surfactant protein B gene (SP-B). This was a result of two separate mutations on the two SP-B gene alleles (*Pediatrics* 1995;96:1046–1052).

Gary D. Friedman, M.D., is among the authors of a study comparing all-cause and specific-cause mortality rates in women who had or had not used long-term postmenopausal estrogen replacement therapy (ERT). Results indicate that long-term ERT use is associated with lower all-cause mortality and confers this apparent protection primarily by reducing the incidence of cardiovascular disease (*Obstet Gynecol* 1996;87:6–12). Dr. Friedman is from the department of epidemiology and preventive medicine at the University of Maryland Medical Center.

Philip McDowell, M.D., Ralph Hruban, M.D., and S. James Zinreich, M.D., are among the authors of a study indicating that in children with chronic sinusitis, the presence of allergy did not predict tissue eosinophilia, and the degree of tissue eosinophilia did not correlate with the severity of mucosal thickening seen on CT scans (*Arch Otolaryngol Head Neck Surg* 1995;121:1396–1402). Dr. McDowell is a postdoctoral fellow in the department of anatomic and clinical pathology, Dr. Hruban is an associate professor of pathology and assistant professor of otolaryngology-head and neck surgery, and Dr. Zinreich is an associate professor of radiology and assistant professor of otolaryngology-head and neck surgery at The Johns Hopkins University School of Medicine.

Bernard Guyer, M.D., M.P.H., is among the authors of the 1994 annual summary of recent trends in vital statistics for the United States. The trends include, but are not limited to, birth rate, death rate, infant mortality rate, and life expectancy (*Pediatrics* 1995;96:1029–1039). Dr. Guyer is a professor of maternal and child health at The Johns Hopkins University School of Hygiene and Public Health.

Leslie I. Katzel, M.D., Ph.D., Eugene R. Bleecker, M.D., Eric G. Coleman, M.D., and Andrew P. Goldberg, M.D., are among the authors of a study comparing the effects of weight loss and aerobic exercise on coronary artery disease risk factors in healthy, sedentary, obese, middle-aged and older men. Results suggest that weight loss is the preferred treatment to improve coronary artery disease risk factors in overweight, middle-aged and older men (*JAMA* 1995; 274:1915–1921). Drs. Katzel, Coleman, and Goldberg are from the division of gerontology and Dr. Bleecker is from the division of pulmonary medicine at University of Maryland Medical Center. Drs. Katzel, Bleecker, and Goldberg are also with the Baltimore Veterans Affairs Medical Center Geriatrics Research, Education and Clinical Center.

Michael J. Klag, M.D., M.P.H., Paul K. Whelton, M.D., and Frederick L. Brancati, M.D., M.H.S., are among the authors of a study comparing blood pressure and end-stage renal disease in men. Results indicate that elevations of blood pressure are a strong independent risk factor for ESRD and that interventions to prevent the disease need to emphasize the prevention and control of both high-normal and high blood pressure (*N Engl J Med* 1996;334:13–18). Dr. Klag is an associate professor of medicine, Dr. Brancati is an assistant professor of medicine, and Dr. Whelton is a professor of medicine at The Johns Hopkins University School of Medicine. Dr. Brancati is also a professor of epidemiology at The Johns Hopkins University School of Hygiene and Public Health.

Cornelia L. Trimble, M.D., a postdoctoral fellow in the department of gynecology and obstetrics, and **Robert J. Kurman, M.D.,** the Richard W. Telinde professor of gynecologic pathology at The Johns Hopkins University School of Medicine, are among the authors of a study published in *Obstetrics and Gynecology* (1996;87:59–64) supporting the view that vulvar carcinoma has two different etiologies, one related to human papilloma virus infection and one that is not.

John G. Bartlett, M.D., and Linda M. Mundy, M.D., are the authors of a review article on community-acquired pneumonia (*N Engl J Med* 1995;333:1618–24). Dr. Bartlett is the Stanhope Bayne-Jones professor of medicine and Dr. Mundy is a postdoctoral fellow in the division of infectious diseases at The Johns Hopkins University School of Medicine.

Margaret B. Rennels, M.D., and Virginia A. Keane, M.D., are among the authors of a study to evaluate whether breast-feeding affected the immunogenicity and/or efficacy of candidate rhesus-human rotavirus reassortant vaccines. Results indicate that the tetravalent rhesus-human reassortant vaccine (RRV-TV), given as 3 doses of 4×10^4 plaque-forming units, induces similar seroresponses and protection in breastfed and nonbreastfed U.S. children (*Pediatrics* 1995;96:1132–1136). Dr. Keane is from the department of pediatrics and Dr. Rennels is from the department of pediatrics and the Center for Vaccine Development at University of Maryland Medical Center.

Bart Chernow, M.D., F.A.C.P., is the editor of *Pocket Book of Critical Care Pharmacotherapy*, published by Williams & Wilkens in 1995. Dr. Chernow is a professor of medicine, anesthesia, and critical care at The Johns Hopkins University School of Medicine; physician-in-chief at Sinai Hospital of Baltimore; and editor-in-chief of the journal *Critical Care Medicine*.

Maurice Y. Nahabedian, M.D., and A. Lee Dellon, M.D., are the authors of a report describing 26 lateral femoral cutaneous (LFC) nerve entrapments in 23 patients. Etiologies included iliac crest bone graft harvesting, seat belt injury associated with motor vehicle accidents, and diabetes. Of the 23 patients (25 of the 26 entrapments), 22 achieved good to excellent outcomes following surgical decompression of the LFC nerve (*Ann Plast Surg* 1995;35:590–594). Dr. Nahabedian is a postdoctoral fellow in the division of plastic surgery and Dr. Dellon is a professor of plastic surgery and neurological surgery at The Johns Hopkins University School of Medicine.

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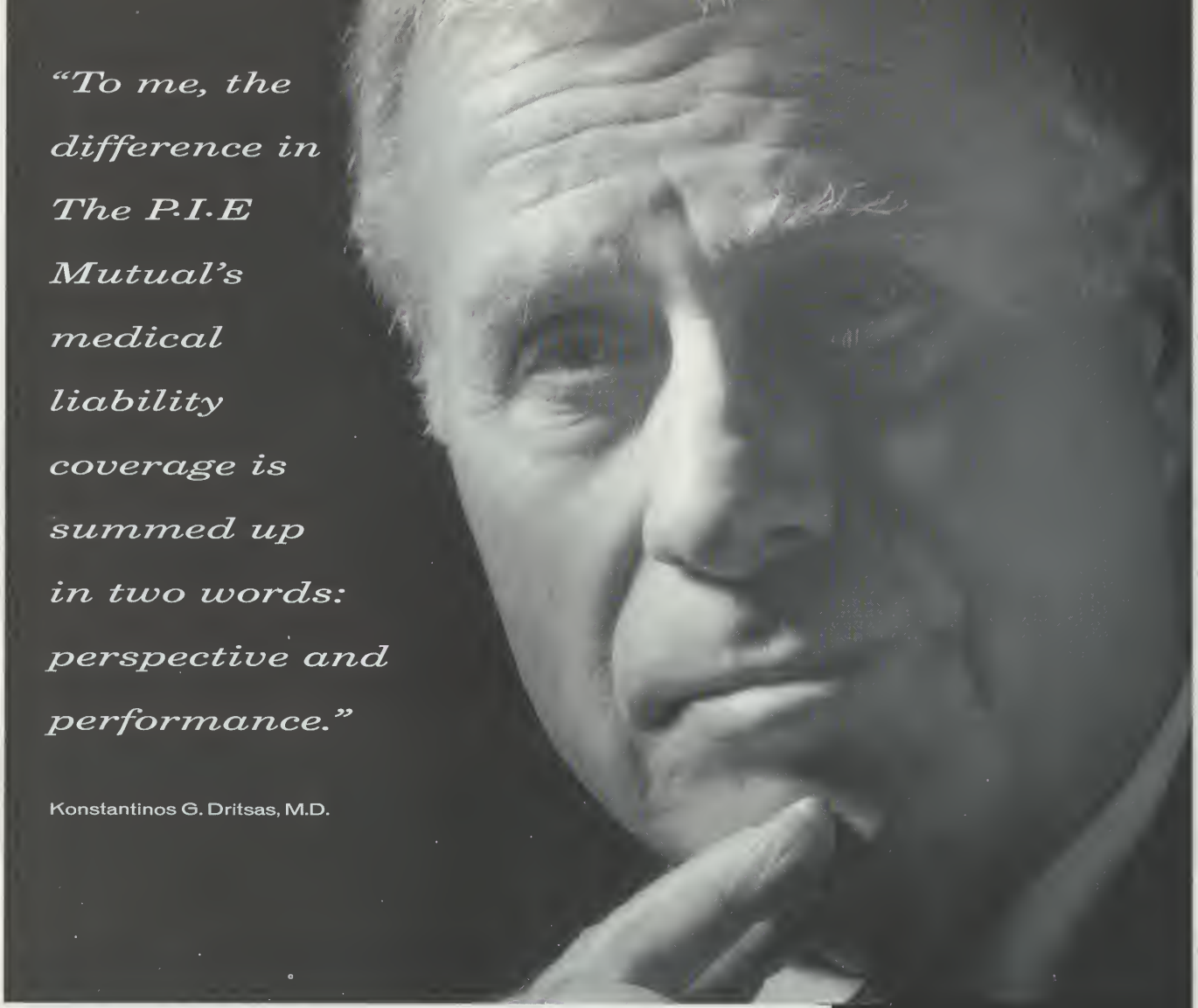
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Lead poisoning: the implications of current biomedical knowledge for public policy

Ellen K. Silbergeld, Ph.D.

Dr. Silbergeld is a professor in the departments of pathology and epidemiology and preventive medicine at the University of Maryland School of Medicine.

ABSTRACT: *New information on the nature and extent of lead poisoning, as well as on sources and toxicokinetics of lead, is relevant to the development of effective public health policy. Lead at low levels of exposure is now recognized to be toxic, and it is difficult to discern a threshold for lead toxicity in populations exposed to lead at levels nearly 200 times those experienced by pre-industrial humans. Although some sources of lead have been controlled, notably lead in gasoline, there are persistent lead sources associated with past uses of lead in paints, plumbing, and gasoline. In Baltimore City, nearly 50% of children screened in 1993 had blood lead levels in excess of guidelines issued by the Centers for Disease Control and Prevention. Much of this exposure is associated with lead-based paint in housing.*

Lead poisoning is among the most prevalent and serious preventable diseases of environmental and occupational origin in the United States and many other countries. Lead poisoning is one of the oldest recognized hazards of occupational and nonoccupational origin,[1] yet despite this long history, clinical medicine and public health have not kept pace with new knowledge of both the hazards and sources of lead. Indeed, during the past two decades, use of lead and its dispersion into the environment have increased worldwide, despite the promulgation of controls during the same period on specific lead uses in many countries.[2,3] The reasons for this treadmill of continuing failures to eradicate what is an entirely preventable disease lie in four

Reprints: *E.K. Silbergeld, Ph.D., University of Maryland School of Medicine, Room HH102A, 660 W. Redwood St., Baltimore, MD 21201*

persistent myths concerning the nature of lead poisoning and the sources of lead risks. These myths are:

- only some forms of lead are toxic, a myth that originated with ancient medicine but continued to be expressed until the mid-twentieth century;
- only high or acutely toxic exposures to lead present significant or lasting health risks, a myth still endorsed by some;
- only some people are susceptible to lead, a social myth voiced by many;
- the lead problem has been solved, a pernicious myth of recent origin.

These myths are important to examine and dispel because they continue to be expressed as the United States and other countries confront local and international lead problems. This article summarizes current knowledge on the risks of lead for human health and the implications of this knowledge for evaluating the inadequacies of current policies to prevent lead poisoning for both children and workers.

Myth 1. Only certain forms of lead are toxic

Although Dioscorides, Galen, and Hippocrates all described manifestations of occupational lead poisoning, their contemporaries failed to recognize that lead in other forms and uses was also hazardous to health.[4] A Roman recipe for the production of sweet wine explained how to boil lead acetate—known as sugar of lead—with grape juice to form a sweet syrup (sapa) that was added to wine. Wines made in this fashion had concentrations of lead as high as 1000 to 2000 ppb, approximately 20 to 400 times current drinking water standards in the United States, Japan, and western Europe (which range between 5 and 50 ppb).

Although the Romans failed to recognize the elemental nature of lead, our own dealings with lead have demonstrated similar lack of understanding. In 1925, when the Ethyl Corporation sought permission to introduce tetraethyllead (TEL) to gasoline, the apologists for the lead industry strongly resisted attempts by Alice Hamilton and Yandell Henderson to extrapolate from knowledge of *inorganic* lead toxicity.[5] In the 1960s, debates over the hazards of lead in paint were similarly obscured by assertions that different compounds of lead used in paint were differentiable in terms of toxicity.[6]

It is now recognized that it is lead, as lead, that is toxic. Although different compounds of lead are absorbed at somewhat different rates, and TEL is relatively rapidly distributed to the central nervous system (CNS) as compared to all inorganic lead compounds, these differences are relatively small and *no* compound of lead can be considered wholly nontoxic.

Myth 2. Only acutely toxic, high-dose exposure to lead is of concern

This myth has persisted far longer than can be explained by the progress of clinical medicine and toxicology. As early as 1914, Sir Thomas Oliver[7] noted that lead poisoning could be a latent disease, in that workers, who had during employment been without signs of clinical intoxication, could show clear signs of plumbism, or lead poisoning, long after retirement. These observations were largely ignored for almost 60 years.

In 1977, the National Research Council report on lead defined the "normal range of lead in blood" as 5-40 mcg/dL.[8] Guidance to pediatricians identified children as lead-poisoned when their blood lead levels were in excess of 60 mcg/dL. In 1978, the Occupational Safety and Health Administration set as a blood level requiring removal of a worker from lead exposure an exceedance of 50-60 mcg/dL. All of these guidelines were based on the assumption of a threshold for the toxic effects of lead that was reliably equated to exposures associated with frank toxicity such as anemia, renal damage, or peripheral neurotoxicity. It was generally assumed that absent the induction of clinical toxicity, the effects of lead were fully reversible. There were even suggestions in the biomedical literature that lead might be an essential trace element and that deficiencies of lead intake could be deleterious to health.

In just ten years, medical understanding of lead toxicity, particularly in children, was transformed.[9] An accumulation of epidemiologic studies demonstrated that the toxic effects of lead are not reversible and that lead toxicity is likely to occur at levels of exposure far below those associated with clinical signs. The CNS was identified as the particular target for low-level lead toxicity, and the effects of greatest concern were related to delays and deficits in neurocognitive function, particularly in young children exposed during periods of neurodevelopment. In 1943, Byers and Lord[10] reported that older children who had apparently recovered from earlier lead poisoning showed a high prevalence of severe mental and cognitive deficits. In 1975, de la Burdee and Choate[11] again raised the issue of the latent sequelae of so-called asymptomatic lead poisoning. Taking advantage of the opportunity to study children enrolled in Head Start, they noted that early lead exposures at levels not causing overt clinical intoxication were associated with problems in learning and substantial decrements in performance on standard psychometric tests.

In 1979, Needleman and colleagues[12] published the first of several landmark reports on the long-term effects of "low level" lead poisoning, defined at the time as exposures below 40 mcg/dL. Using the marker of tooth (dentine) lead, they

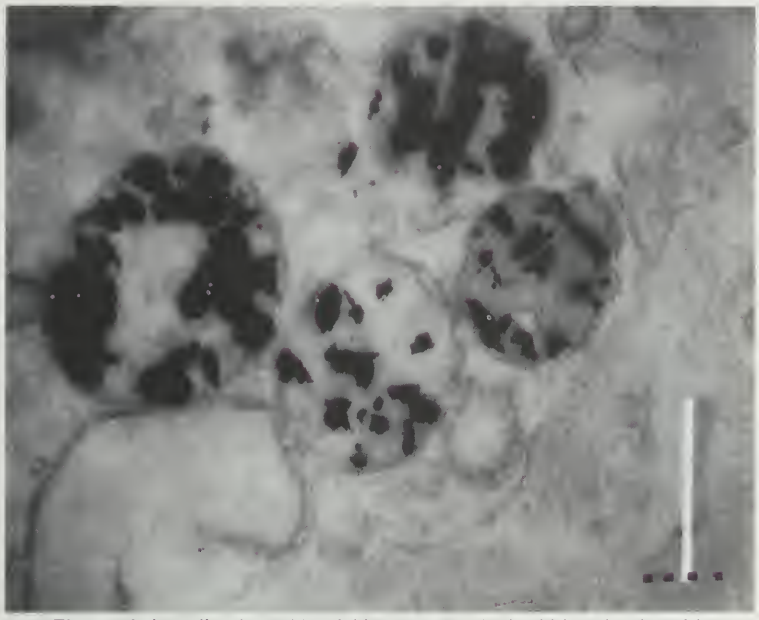


Figure 1. Localization of lead (dense granules) within mitochondria of neurons from rat brain; x-ray microanalysis shows the granules contain lead.[19]

determined past lead exposures in children aged 8 to 12 years, whom they were able to assess in depth as to school attainment, social behavior, and psychophysiologic parameters such as reaction time and quantitative electroencephalography. None of the children studied in this cohort had ever been noted as lead poisoned, yet there was a clear dose-related decrement in many measures of intelligence, learning, and behavior related to the concentration of lead in shed teeth. Although that study was heavily attacked by the lead industry and its apologists during the evaluation of lead in gasoline conducted by the Environmental Protection Agency from 1983 to 1986, and again through the mechanism of a charge of scientific misconduct in the 1990s,[13] its methods and conclusions have been validated by repeated reanalysis. In addition, several investigators in other countries have replicated the original findings of that study (see Schwartz[14] and Ernhart[15] for differing reviews of this literature). The original Boston cohort has been periodically reassessed, and in 1990, Needleman and colleagues[16] reported that children with high dentine lead levels in the original study had much poorer outcomes in terms of school finishing, reading skills, and social adjustment. These effects have apparently continued.[17]

These studies prompted studies in which children were enrolled (in some cases, before birth) and their lead exposures and neurocognitive development studied *prospectively*. By 1985, several carefully designed prospective studies on children exposed to relatively low levels of lead demonstrated that the effects of lead could be separated from other risks to children's neurological development and behavior. These studies, conducted in several countries, converged on an estimate that for an increase in blood lead of approximately 10 mcg/dL, children's performance on standard IQ tests was decreased by 5 to 7 points. When studies around the world were combined by meta-analysis, no clear threshold for lead neurotoxicity could be found.[14] Those functions most sensitive to lead appeared to involve tasks requiring short-term memory and attention.[18]

At the same time, experimental research in several species, both rodents and primates, provided some basis for understanding how lead could be neurotoxic at very low exposures (see Silbergeld and Rice[18] for review of the concordance of epidemiologic and experimental studies of lead neurotoxicity). Rodents and primates with blood lead levels as low as 15 mcg/dL have deficits in learning and social behaviors that are highly persistent. Research on the mechanisms of lead neurotoxicity also supports the conclusion that very low concentrations of lead at critical target sites are toxic. As shown in **Figure 1**, lead is accumulated within nerve terminals. As it gains access to intracellular sites of toxic action, it is increasingly potent in its toxicity (**Figure 2**).[19] At concentrations in the picomolar range (10^{-9}M), lead can

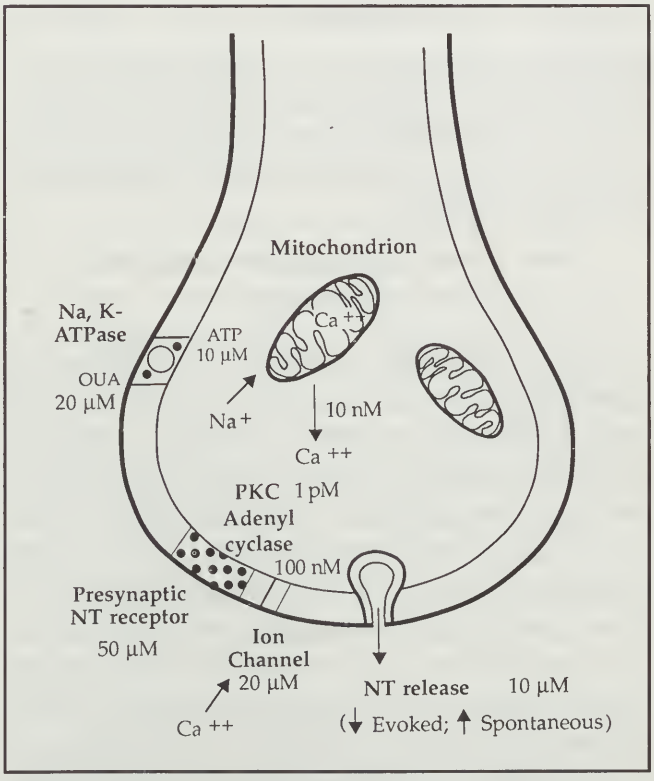


Figure 2. Schematic effects of lead within neurons. Concentrations are approximate EC_{50} values for effects of lead on each function or site.[19]

OUA = ovabain PKC = protein kinase C
CA^{+++} = calcium NT = neurotransmitter

Table 1. Blood lead levels in the U.S. population, 1988-1991[21]

Population	Blood lead, mcg/dL *(geometric mean)*	Percentage above 10mcg/dL
▼ **Non-Hispanic white**		
1-2 yr	3.5	8.5
3-5 yr	2.9	3.7
1-5 yr low econ status		9.8
high econ status		4.3
▼ **Black**		
1-2 yr	6.3	21.6
3-5 yr	5.9	20.0
1-5 yr low econ status		28.4
high econ status		5.8
▼ **Mexican-American**		
1-2 yr	4.2	10.1
3-5 yr	4.0	6.8
1-5 yr low econ status		8.8
high econ status		*

** insufficient numbers for estimation*

affect calcium-sensitive elements in signal transduction, the processes of information processing and storage within the nervous system. These experimental studies challenged the assumption of lead essentiality. In 1978, a paper was published hypothesizing that at the biophysical level there might be no threshold for lead's actions on neurons, because lead neurotoxicity might involve an atom-for-atom substitution for calcium in processes of signal transduction and membrane conductance.[20]

Myth 3. Only some people are susceptible to lead toxicity

The myth of selective susceptibility to lead has been periodically invoked to limit concerns for lead as a public health problem to certain groups of children. It has often been implied that these groups are in some way to blame for their risks of lead poisoning. As shown in **Table 1**, it is the case that in the United States (as in other countries where systematic screening has been conducted[2]), the prevalence of lead exposures varies among ethnic and income groups. In the United States, risks of elevated blood lead levels are highest in African American children as compared to whites or Mexican Americans, and higher in poor children of all races, as compared to affluent children.[21] These differences have little or nothing to do with biology and everything to do with the coincidence of environmental lead sources with other conditions of economic disadvantage in American society in the late twentieth century. As noted by many commentators, lead poisoning is paradigmatic of the problem of environmental racism, in which disadvantaged and politically powerless groups are more likely to live in areas with high levels of environmental risks.

The most important determinant of sensitivity to lead is age. Young children are at high risk for lead toxicity for three reasons: contact, absorption, and target organ sensitivity. First, children's normal exploration of novel environments through hand-to-mouth behavior increases the likelihood of their contact with lead dusts or lead paints on objects that can be mouthed, such as toys. Some children have an abnormal propensity for the ingestion of nonfood materials, including soils (pica); these children may be at special risk for contacting lead. Second, children under the age of about 6 absorb lead more efficiently than do adults, particularly if their diets are substantially milk.[22] Age is a far stronger determinant of absorption than are dietary parameters of calcium, iron, phosphorus, or caloric intake, although there may be an interaction between age and some dietary variables.[23] This differential absorption may extend to the blood brain barrier, which in the young child may permit greater access of lead to the brain. Third, children's brains may be more sensitive to lead. As discussed above, lead can affect several components of neurotransmission, resulting in disruptions in neural communication. During development, neurotransmission serves an additional function beyond information processing. Early cell:cell contacts, which begin before birth before external environmental signals enter the CNS, are thought to play critical roles in "hardwiring" the nervous system, establishing connections between cells that will form the basis for the physical organization of the brain. Because of the role of neurotransmission during brain development (directing cell migration and supporting synaptic strengthening), interferences during this period may have persistent and specific effects on the CNS. Lead exposures of the developing nervous system result in abnormal cytoarchitecture, with both hyper- and hypoinnervation of specific brain regions. Because this process is not repeated extensively, if at all, during human development, the effects of lead exposure to affect nerve cell communication

during this period may have neurotoxic effects that are irreversible (see Goldstein[24] and Silbergeld[19] for discussions).

There has been some recent interest in possible genetic differences in susceptibility to lead. A polymorphism has been reported in the gene for the enzyme ALAD.[25] This enzyme, a rate-limiting step in the biosynthesis of heme, is a sensitive target for lead and is involved in lead-induced anemia. One variant of the enzyme is more sensitive to lead.[25] However, it is not clear that carriers of the "sensitive" polymorphism respond more sensitively to lead in terms of other toxic effects. The enzyme variant more sensitive to lead binds lead more efficiently than the "normal" variant: however, by binding lead to the enzyme, lead may be retained in the red cell, sparing sites within target organs, such as the brain.

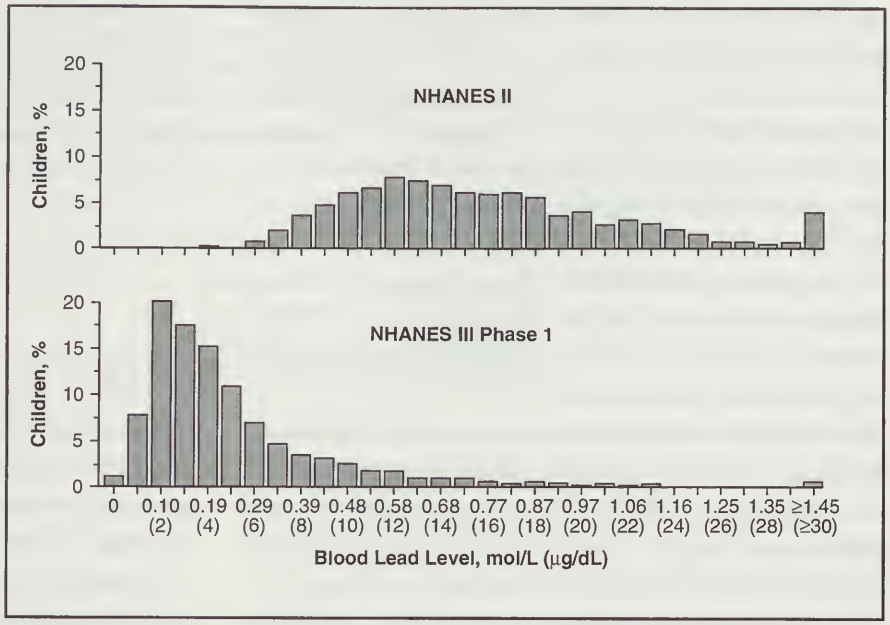


Figure 3. Blood lead levels for children aged 1 to 5 years: United States, second National Health and Nutrition Examination Survey (1976 to 1980, top) and phase 1 of the third National Health and Nutrition Examination Survey (1988 to 1991, bottom).[28]
Used with permission.

Another critical question about susceptibility has to do with the possibility of a "critical window" for lead toxicity. Some have suggested that the fetus is uniquely susceptible to lead, while others have considered that the fetus is no more sensitive than the young child.[15] Based on the assumption of fetal sensitivity and because the placenta offers no barrier to fetal uptake of lead from maternal blood, it has sometimes been proposed as public policy that fertile women should be prevented from being exposed to lead in occupations. This assumption has been invoked by industries in the development of so-called fetal protection policies, which restrict employment opportunities for women. Such policies and assumptions have largely ignored the possibility that lead exposure of the male parent might also contribute to adverse development of children (see Silbergeld and Gandley[26] for discussion).

There is no biological basis for assuming that some people are more susceptible to lead than others, except by age, in order to support either ignoring the general social importance of lead exposures or blaming the victims of lead exposure. The fact that lead exposures are more common and often more intense among economically disadvantaged communities, and the fact that minorities and the poor are more highly represented among such communities than are affluent whites, does not mean that there is a biological basis for the variations in risk. Affluent white children are as susceptible to lead as are poor African American children; they are less likely to experience such risks.[9,21,36]

Myth 4. The lead problem in the United States has been solved.

The disabling myth of victory is the most recent obstacle to the true eradication of lead poisoning. It is true that major steps have been taken to reduce many controllable sources of lead in the human environment. Both source reduction (bans on the use of lead in paint, plumbing materials, and gasoline) and more stringent media standards (lead in air and drinking water) have contributed to substantial reductions in population exposures in the past 20 years (**Figure 3**). Lead levels in ambient air have been reduced almost ten-fold in many areas; lead levels in food, soils, and dusts have similarly declined in parallel with these reductions. The most significant action to reduce lead exposures, however, has been the removal of lead from gasoline. As noted by the Centers for Disease Control and Prevention (CDC),[27,28] this action alone is largely responsible for the 60% to 80% reductions in median blood lead levels observed in the United States from 1976 to 1992.

Two facts, however, prevent us from claiming victory. First, past uses now controlled still leave residues of lead in the environment. Because lead is an element and its toxicity never diminishes, these residues continue to present risks unless specific efforts at remediation or abatement are un-

dertaken. The burden of the past is most notable in the issue of lead in paint. In 1977, the United States finally restricted the use of lead in paints for residential use; however, some 43 million Americans live in residential units where lead paint is present, and, as shown in **Table 2**, for 2 million children the conditions of these units present immediate risks of exposure. Past uses of lead in gasoline have also left tons of lead in the surface dusts and soils of cities and other heavily trafficked areas. Lead plumbing, still in place, continues to leach lead into drinking water consumed by more than 20 million Americans.[22,36]

Table 2. Estimated numbers of children aged less than 7 years residing in unsound and lead-based paint U.S. housing, by age and criteria of deterioration[22]

Category	Construction Date	No. Lead-based paint homes	No. Children
Peeling paint	pre-1975	1,972,000	567,000
Broken plaster	pre-1975	1,594,000	458,000
Holes in walls	pre-1975	2,602,000	747,000
Totals	Pre-1975	6,168,000	1,772,000

Second, despite these actions, as noted earlier, the overall consumption of lead has continued to increase during the past 20 years.[2] Some uses of lead are highly dispersive and result in transboundary exposures for jurisdictions that have constrained if not reduced overall lead use. The state of New York suffered the deposition of lead emissions from an unregulated secondary lead smelter in New Jersey for many years until the facility was finally closed.[29] On an international scale, the problem of transboundary lead pollution is even more complex. For instance, lead aerosols from gasoline affect areas as remote as Antarctica.[30] As shown in **Figure 4,** industrial lead aerosols from Asia have a measurable impact on the U.S. West Coast.[22,31] Other aspects of lead use also contribute to international transfers of risk. Lead products, such as soldered food cans and painted objects, are traded between countries, causing exposures to the population in the importing country and to the burden of waste disposal. For this reason, there is current interest in developing enforceable international conventions on lead uses[2] both to reduce transboundary pollution and to relieve countries of the need for surveillance of lead in imported products, such as canned goods, ceramics, paints, toys, and cosmetics.

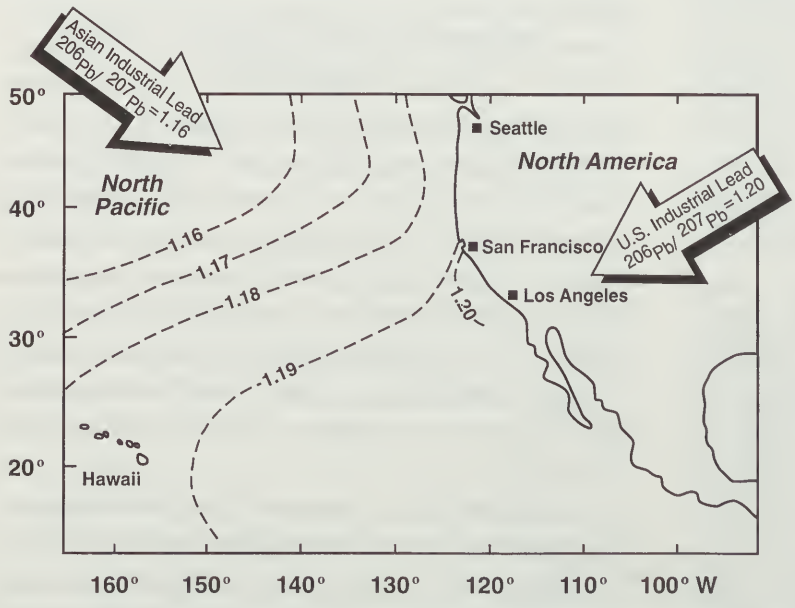


Figure 4. Movement of industrial lead aerosols to northeast Pacific Ocean from Asian and North American sources.[22,31*]

New developments in lead toxicity

Although much is known about lead toxicity and the populations at risk for exposure and effect,[22] new developments in medical understanding of lead may increase our concerns. Most importantly, there has been a major reassessment of lead kinetics. It had been known for some time that most of the body's lead burden is stored in bone and that over time, the bone compartment slowly accumulates lead, with a half-life in excess of 20 years. Lead storage in bone was once considered to be a beneficial process of biological sequestration that removed lead from active sites of toxicity in soft tissues. That view changed after publication of a study demonstrating that lead stored in bone may be mobilized back to the circulation in response to physiological changes over the lifetime, such as pregnancy and menopause.[32] Earlier studies had already suggested that blood lead levels rise under conditions where bone mineral metabolism is shifted towards resorption (e.g., bed rest, pregnancy, disease[33]).

These findings suggest that older persons, such as postmenopausal women, may be at risk for lead toxicity from past exposures. Moreover, public health policies based on blood lead measurements may be inadequate to prevent later lead toxicity if bone stores are mobilized. Most immediately, these findings challenge current policy in occupational medicine to prevent lead poisoning

by medical removal or the temporary reassignment of workers away from lead exposure (with wage and job seniority protected).[34] Short-term medical removal, triggered by elevations in blood lead, does not prevent the accumulation of lead in bone. If these stores of bone lead are later physiologically mobilized, they may contribute to some of the longer-term sequelae of occupational lead poisoning, such as hypertension, renal disease, and even cancer.

Discussion

The recognition that lead at low doses (very low doses in the perspective of 1977) is toxic, possibly irreversibly so, has had major impacts on medical perspectives. First, the apparent irreversibility of lead toxicity, particularly in young children, has required public health officials to approach lead poisoning from the perspective of primary prevention. The lack of effective pharmacologic interventions for low level lead poisoning increases this demand. Currently available therapeutics, including the new oral chelator succimer, are not known to be effective in reducing lead-associated outcomes in children with blood lead levels below 40 mcg/dL. A multicenter clinical trial is now underway in Baltimore and elsewhere to evaluate the efficacy of succimer chelation for children with blood lead levels between 25 and 40 mcg/dL.

The lowering of blood lead levels has also had an impact on how at-risk children are detected. First, erythrocyte protoporphyrin (EP) cannot be used to find children with blood lead levels <30 mcg/dL.[35] No other rapid clinical marker has been identified to substitute for the ease and elegance of the EP test devised by Piomelli and colleagues[22] in the early 1970s. At this point, lead exposure can only be reliably assessed by drawing a blood sample and analyzing lead by laboratory-based methods requiring considerable investments in equipment and trained personnel and constant attention to QA/QC concerns.

With the lowering of the level of concern, the numbers of children with blood lead levels in excess of 10 mcg/dL has greatly increased (see **Figure 3**), which prompted CDC and the American Academy of Pediatrics to recommend universal screening or testing of all children by the age of 18 months for blood lead concentrations. These recommendations were challenged by some pediatricians and others who claimed that such recommendations were insensitive to substantial local differences in prevalence of elevated blood lead levels in children. The results of the NHANES III national survey of lead exposures, published in 1994, offered some support to these views: from 1980 to 1992, the median blood lead level in children had decreased from 11 mcg/dL to 5 mcg/dL, and the prevalence of children with blood lead levels>10 had decreased from 16% to 6%.[21] Nevertheless, there are communities where elevated blood lead level prevalence continues to be high. As shown in **Table 3**, of children screened in Baltimore City in 1993, nearly 50% had blood lead levels >10 mcg/dL and about 10% had blood lead levels >15 mcg/dL.

Our appreciation of the sources of lead for specific populations has also changed. In 1988, researchers inventoried sources of potential lead exposure, including contaminated soils, drinking water, point source, and paint.[36] Although all sources of lead are cumulative to individual and population exposures, some of the sources of lead thought to be of potential significance (lead in soil, lead near mining sites) do not appear to be major determinants of blood lead levels.[37] These and other data point strongly to the importance of one of the last remaining uncontrolled sources of lead,

Table 3. Blood lead levels in Maryland, 1993[a]

Area screened	Number screened	Blood lead level, mcg/dL (%)				
		1-9	10-14	15-19	20-24	≥ 25
▾ Baltimore City	33,207	21,188 (63.8)	6804 (20.5)	2933 (8.8)	1264 (3.8)	1018 (3.1)
▾ Baltimore County[b]	4772	4140 (86.8)	441 (9.2)	130 (2.7)	36 (0.8)	25 (0.5)
▾ Howard County[b]	339	311 (91.4)	21 (6.2)	4 (1.2)	2 (0.6)	1 (0.2)
▾ Montgomery County[c]	1794	1728 (96.3)	45 (2.5)	15 (0.8)	3 (0.2)	3 (0.2)

[a] Data from Maryland Lead Poisoning Prevention Program, Maryland Department of the Environment.
[b] Counties immediately adjacent to Baltimore City.
[c] Maryland's most affluent county.

lead-based paint, as a major predictor of lead toxicity for young children. For particular populations, specific local sources (including ethnic customs in homeopathic medicine[4]) remain important.

The rapid revision in medical consensus on the definition of lead toxicity has led some to suspect that an epidemic is being artificially created. It may be useful to consider lead in perspective. It is possible to compute an "LD_{50}" for lead, or the blood lead level at which children are at risk of death. That level, 100 mcg/dL, is only one order of magnitude above the current CDC guidance level of 10 mcg/dL. According to the recent NHANES III survey, median blood lead levels in the United States are now about 5 mcg/dL. The lowest levels generally found in the United States are about 1 mcg/dL. Remote biota in relatively pristine areas may have blood lead levels as low as 0.1 mcg/dL. Flegal and Smith[38] estimated that preindustrial humans may have had blood lead levels of about 0.01 mcg/dL (based upon computations of bone:blood lead ratios, and the analysis of lead in bones from preindustrial human remains). This comparison shows that current public health guidance levels are much closer to the lethal levels of lead than they are to any "background" levels. It is likely that we have not come to the end of our understanding of the toxicity of lead, nor yet to the goal of eradicating this entirely preventable disease.

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* *Figure 4 reprinted with permission from* Measuring Lead Exposures in Infants, Children, and Other Sensitive Populations. *Copyright 1993 by the National Academy of Sciences. Courtesy of the National Academy Press, Washington, DC.*

According to the Centers for Disease Control and Prevention, it is estimated that 95% of elevated blood lead levels (BLLs) in U.S. adults are attributable to occupational exposure.[1] A report last year describing sandblasting workers who developed acute lead poisoning underscores the fact that lead-containing paint continues to be a source of exposure.[2] It also indicates that even when elevated BLLs are recorded, lead poisoning may not be diagnosed or treated.

For approximately six weeks in 1994 (February 15-March 30), a group of eight workers sandblasted interior surfaces of a 100-year-old, 5-story building in Galveston, Texas. On March 15, one worker experienced the onset of symptoms including abdominal pain, vomiting, weight loss, constipation, headache, memory loss, tinnitus, metallic taste, stuttering, arthralgias, and discoloration of the gums. He did not present for treatment, however, until April 8. When his BLL was found to be 111 mcg/dL, lead poisoning was suspected, and his diagnosis and occupational exposure history were reported to county health authorities. (Texas law requires requires reporting of BLLs $\geq$40 mcg/dL in adults).

A subsequent investigation revealed that another of the sandblasting workers had developed similar symptoms and was hospitalized March 28. Although the BLL recorded in his chart was 245 mcg/dL, blood poisoning had been neither diagnosed nor treated. The other six workers also were located. One had worked at the site for only 1 week; his BLL was 15 mcg/dL. In the other five workers, BLLs ranged from 47 to 92 mcg/dL.

The editorial accompanying the above report states:

"The incident . . . underscores the continuing risks for adult lead poisoning in the United States, particularly among workers in construction trades. In addition, the findings . . . indicate the need for increased education of employers, employees, and health-care providers regarding lead exposure and poisoning. . . . Although this problem was eventually recognized by a health-care provider who then notified local health authorities, the opportunity for earlier intervention was missed because of delays in identification of lead toxicity and reporting of elevated BLLs.

"One of the national objectives for the year 2000 is to eliminate occupational exposures that result in BLLs >25 mcg/dL (objective 10.8). The prevention of occupational lead poisoning requires increased awareness by both employers and employees of the sources of lead exposure in the workplace . . . and an increased level of suspicion and compliance with reporting requirements by health-care providers."[2]

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Effects of movies on children's emotional health

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ABSTRACT: *Parents are in a dilemma when it comes to deciding what films they should allow their children to see. They know intuitively that some viewing experiences are entertaining while others are potentially harmful. The authors have been viewing films and talking with parents, educators, and mental health professionals for several years to try to answer questions posed by these conscientious but frustrated parents. This article, the first published regarding our findings, describes the history of today's movie rating system, which represents an early but inadequate attempt to offer parents guidance. A recent film,* The Lion King, *will demonstrate a developmental approach to thinking about movies for children. This method uses current research on the effects of movies on children and knowledge of child development to predict reactions of children in particular age groups to elements in a movie.*

Beginning in the 1920s, the motion picture producers' and distributors' national association established restrictions on film content, modified over the decades to reflect changing moral standards. The current rating system, developed in 1969 by the Motion Picture Association of America, is in response to Supreme Court decisions permitting local governments to censor media. According to Dr. Barbara Wilson, a national expert on the psychological effects of television and film, the film industry created the rating system to head off greater restrictions from municipalities and states.[1] In other words, economic and political interests are influential in defining what ratings are given to films. There has been no significant revision since 1984, when the *PG-13* category

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was added in response to complaints from experts and parents that *Gremlins* and *Indiana Jones and the Temple of Doom* were too violent and frightening for young children. Until then, there had been no category to differentiate preteen versus teenage audiences. Today there is still no category to separate preschoolers from school-age children, despite the fact that preschoolers are affected in a somewhat different way because they are less able to distinguish make-believe from reality. Young children are not able to use the narrative context or knowledge of the world to reassure themselves when they see something frightening. Parents, worried about their children's responses to family movies, are understandably confused by and skeptical of the *G* rating of the Motion Picture Association of America.

An additional major limitation of the rating system is that it is based on a standard of "offensiveness" to a full-time board of seven Los Angeles parents (not experts) who are employed by the Motion Picture Association. For example, at first glance, *The Wizard of Oz*, containing no offensive language or nudity, assuredly would merit a *G* rating. Many parents, however, have observed that young children react with fright, anxiety, and nightmares to the scarecrow being torn apart or the wicked witch dissolving in water. Dr. Wilson, a prominent researcher in this area, concludes that the standards and procedures of the rating group do not at all address the question of harmful psychological effects, for which there is a substantial body of research now available.[1]

In *The Lion King*, more than 400 animators contributed to a stunning visual and aural experience, using the digital graphical technology perfected in *Beauty and the Beast* and *Aladdin*. Our childhood fantasies of a primordial, unspoiled Africa roamed by hordes of diverse wildlife are rekindled by the movie. The animation is coordinated with the voices of a topnotch cast that includes James Earl Jones, Matthew Broderick, Jeremy Irons, and Whoopi Goldberg. At the conclusion of the film, extensive credits show that scores of personnel were assigned in teams to bring each character to life. An adult viewer can appreciate, in a way that a younger viewer cannot, the enormous coordinated effort that was applied to the artistic imagination of this film.

The realism and powerful evocativeness of the characters raise questions about the effects of this film on young viewers. The movie opens with drumming, chanting, and the music of Elton John as the sun rises over the African plain. Great gatherings of elephants, zebra, flamingo, and giraffes fill the screen, and viewers are treated to a spectacle not seen in animation art since *Fantasia*. As the families of animals gather at Pride Rock, we are introduced to a proud King Mufasa, Queen Sarabi, and the infant Simba. As Simba grows into a frisky cub, we watch the unfolding of Simba's relationship with his father, whom all admire for his wisdom, strength, and fairness. The animators' art is so skillful that we are entranced into believing in the reality of that father-son relationship. The facial expressions and nuances are timed perfectly to simulate human expressiveness.

Simba is developmentally less dependent on his mother and has turned with great interest to father. He is fascinated by Mufasa's role as king and anticipates some day taking his father's place. Simba's play with his girlfriend, Nala, has added excitement as they defy his father and explore the forbidden territory of the elephant's graveyard.

The movie audience becomes emotionally involved with the love and pride shared by Simba and his father. The viewer then must watch for many agonizing minutes while the conspiracy of the king's younger brother, Scar, to murder them unfolds. Mufasa heroically rescues his son from the hooves of wildebeests stampeded by Scar's hyena cronies. In an effort to save himself, he then claws his way up a cliff and desperately pleads "Brother, help me." Scar responds by digging talons into his brother's paws and with a sneer declares, "Long live the king!" as he shoves Mufasa to certain death far below. Simba discovers his father's inert and motionless body. Simba is shocked by the dawning realization that something is radically wrong with his unresponsive father. He plaintively begs, "Dad, come on, you've got to get up," as if Mufasa were sleeping. Simba then falls asleep under Mufasa's great paw, as if both were sleeping. This sequence stimulates memories or fantasies of loss, because of the exquisite care that went into making the images of the characters so lifelike. For a younger or vulnerable child the devastating possibility of losing a father suddenly becomes very real. The equation of sleep with death is common in western society. For example, animals are "put to sleep," death is "eternal rest," and so on.

Children younger than seven years of age are usually uncertain about the permanency of death and fear the implied separation. It is not uncommon for sleep disturbances and worries about death or separation to occur in young children after watching just such a death scene.

One is reminded of the reactions of another generation to *Bambi*. A hungry Bambi and his mother are foraging for grass on a gray winter day. The deer flee when shots ring out. The mother falls. Bambi reaches the thicket and turns to find his mother, but discovers that he is alone. He is startled and frantically searches for her in a snow storm while piteously crying for his mother. Any scene depicting the death of a parent is profoundly disturbing for children. What has been added to the experience of loss by the creators of *The Lion King* is another very powerful psychological element that

requires additional explanation. Why does Simba assume the guilt for the murder of his father?

A boy's relationship to his father is complex. The boy experiences father lovingly as a model of strength and manliness and angrily as a frustrator of the child's urges and wishes and as a rival for the mother's affections. The boy's development progresses as conflict over his love for father on the one hand and fear of father's retaliation for his murderous, rivalrous wishes on the other, resolves in favor of identification with parental values. He will be like father. These identifications coalesce into a permanent intrapsychic structure crucial for self-regulation called superego, or conscience. In this film Scar, the saccharine sweet uncle of Simba and envious, murderous brother of Mufasa, tells Simba that the cub killed his father, "even though he didn't mean to." Simba, unprepared to see through Scar's lies and treachery, is all too ready to believe he committed the crime. Not long before, he had defied his father by venturing into the forbidden territory of the elephant's graveyard with his girlfriend. A boy watching the film would likely connect the dangerousness of the hyena's lurking there with the excitement of the romance and fears of the king's retaliation for Simba's presuming to have a mate like father. After all, he had been singing, "I just can't wait to be King." Simba, consumed by guilt, becomes depressed, turns on himself, and wishes to die. Scar in mock pity tells him instead to run and never come back.

What follows in the film is psychologically compelling. Simba escapes the hyena assassins and is taken in by two pals, Timon the meerkat and Pumbaa the warthog, who play and live in a land that is paradisiacal. Simba spends years singing "Hakuna Matata" (no worries), a mantra to drown out thought and memory, living by the philosophy of forgetting the past and future, living in the present, and eating colorful bugs of all shapes and textures. Simba is awakened from this numb state by his childhood companion, Nala, and the wise old baboon/shaman, Rafiki, who reminds Simba that he is the rightful king and that his father lives inside him. Simba returns to Pride Rock, from which he exiled himself, overthrows the evil impostor Scar and the hyenas, and asserts his place as king.

The film is beautiful, riveting, and, like *Aladdin*, absorbing for adults as well as children. Young children, however, are disturbed by small animals in danger and the repeating emphasis in the dialogue and action that bigger creatures eat the smaller ones. The murder of the king by an evil brother, the anguish of the guilty son, can be compared to the similar plot structure in *Hamlet*. This theme resonates with the universal conflicts of the Oedipal phase of development involving the most poignant conflict between rivalry and affection, love and hate.

We have observed in the theater that 4- and 5-year-old children react with fear and cringe on seeing the murder scene in which Scar digs his claws into his brother's paws and shoves him to his death.

Although it is ambiguous whether Simba saw the murder, the child watching the film does see Scar push Mufasa to his death. Unprepared to see through lies and treachery, the guilty son shoulders the blame and guilt for his father's death. His readiness to believe Scar stems from guilt about rivalrous, murderous feelings that were kept in check as long as his father was alive. His impulses to compete with and defy his father were met with his father's assertion of his formidable and reassuring presence. With Mufasa dead, there is no external support for Simba's still not fully developed internal balance. Simba, scared and confused, runs away.

For 3- to 6-year-olds, the death scene in *The Lion King* is dangerously close to their wishes and fears. Uncertain reality testing, identification with Simba, and the compelling nature of the movie may overwhelm the child's capacity to modulate emotional responses to the film. The experience becomes frightening and is no longer entertaining. Children struggling with fears of loss or experiences of loss or with strong, angry, competitive feelings toward their fathers may be especially susceptible to increased anxiety or aggressiveness after watching this film. It is less upsetting to older children of at least 7 years of age, who have internalized their multifaceted image of father and have stronger controls over their own "Scar" impulses.

Children, excited by television commercials and a carefully orchestrated arrival of Lion King toys and clothing in stores, eagerly awaited the movie. Great pressure was brought to bear on parents to take their offspring to the movie. A kindergarten teacher informed us that her class divides itself into four groups for activities: the Simba group, the Mufasa group, the Nala group, and the Rafiki group. Children came home singing "Hakuna Matata," "The Circle of Life," and other tunes they heard in music class before having ever seen the film. Some parents tell us their children spend days after seeing the movie using Lion King toys to play out the drama over and over. They may watch the video numerous times in a compulsive way. The driven nature of this activity suggests the repetition is to master worrisome feelings, just as the victim of an auto accident may repeat the accident over and over in memory and dreams.[2]

A film that is entertaining, intellectually stimulating, or artistically satisfying for an adult may be disruptive for a child. Similarly, what may give a 10-year-old pleasure may

give a 5-year-old nightmares. A *G* rating does not mean children of all ages will experience the movie in the same way. For example, a classic such as *The Wizard of Oz* is frequently terrifying for the preschooler as the friendly scarecrow is torn to shreds by winged monkeys. Older children, who distinguish between fact and fantasy, look forward to seeing this movie. The authors feel a developmentally sound rating system would be more informative to parents than one based on offensiveness.

How does *The Lion King* fare with our approach? We agree that for children aged 7 and older, the movie is likely to be well received and a good experience. There is, however, a caveat. Even Disney films sometimes portray lengthy, wrenching scenes that contain parental separation or death. A child who has experienced such a tragedy requires special consideration. At a minimum, a trusted adult needs to be available during and after the film. The parents of a preschooler, due to the child's unreliable reality testing, preoccupation with conflicting feelings about his or her father, and a not yet fully organized superego/conscience, would do better to have the child wait and see the film at an older age.

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The Extension Division of The Baltimore-Washington Institute for Psychoanalysis, Inc., will present a seminar-workshop Saturday, April 20, 1996, in Calverton, Maryland, on the effects of films and other media presentations on children. The workshop is accredited for 5 AMA category 1 CME credits. For information, call 410-792-8060 (Baltimore metro) or 301-470-3635 (Washington metro).

CALL FOR INSTRUCTIVE CASE REPORTS

The editors of the *Maryland Medical Journal* believe all practicing physicians—generalists and specialists alike—are a fertile source of instructive, experienced-based clinical anecdotes. The most memorable anecdotes illustrate the art as well as the science of medical practice; they teach a lesson that goes beyond the "facts" of the case.

We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission requirements:

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

Identification of childhood vaccine providers in Maryland

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ABSTRACT: *The purpose of the study was to compare the utility of an American Medical Association (AMA)-derived list and a Maryland State Department of Health and Mental Hygiene (state)-derived list of potential childhood vaccine providers (CVPs) in identifying true childhood vaccine providers for the Vaccines for Children (VFC) program in Maryland. A telephone survey of a sample of physicians from the two lists was used to determine their status as providers of routine vaccinations to children. Results showed a significant difference between the two lists. The state-derived list was composed of an estimated 60.7% CVPs, whereas the AMA-derived list was composed of an estimated 36.7% CVPs. Using the capture-recapture method, it was estimated that there are about 2077 CVPs in Maryland. Based on this figure, the state-derived list would have identified 71.7% of the state's CVPs, and the AMA-derived list would have identified 59.4%. Using the AMA-derived list would have required contacting approximately 1800 extra providers to identify the additional 350 CVPs (16.8%) not identified in the state-derived list. Accurate, up-to-date lists of providers that include pertinent practice characteristics would enhance the ability to contact specific providers for VFC program enrollment and for other clinical and public health purposes.*

In 1993, federal legislation created the Vaccines for Children (VFC) program to provide free vaccines to children aged 18 years or younger for whom cost may be a barrier to receipt of vaccines. The program resulted in the need to identify physicians who provide vaccines to children to

Table 1. Child vaccine providers in Maryland

Characteristics	Common list	State-only list	AMA-only list
▾ Total names	1187	1267	2174
▾ Survey sample size	107	103	101
▾ Number respondents (%)	98 (91.6)	88 (85.5)	87 (86.2)
▾ Number respondents who vaccinate children aged ≤ 18 years (%)	73 (74.5)	42 (47.7)	14 (16.1)
▾ Number respondents who vaccinate children aged ≤ 2 years (%)	68 (69.4)	38 (43.2)	10 (11.5)
▾ Estimated number who vaccinate children aged ≤ 18 years	884	605	350
▾ Percent of CVPs in Maryland *	42.5	29.1	16.8

** Based on total number derived by the capture-recapture method.*

target them for enrollment efforts. In June 1994, the Centers for Disease Control and Prevention (CDC) provided each state with a list of potential childhood vaccine providers (CVPs). It was not clear, however, if the lists included all CVPs for VFC enrollment in a state. It also was unclear if the lists excluded physicians who do not provide vaccines to children. For other immunization activities prior to VFC, a list of probable CVPs had been generated by the Maryland Department of Health and Mental Hygiene (DHMH).

The following study was performed to determine which list or combination of the two would provide the largest number of true CVPs. The information was expected to be valuable not only for VFC recruitment efforts in Maryland, but for other programs that need to identify all CVPs, such as the state immunization registry.

Methods

The CDC list was procured through a commercial firm using the American Medical Association (AMA) registry of all physicians in the country (not just AMA members). The AMA information is updated daily from information provided by physicians themselves, as well as other sources such as licensing and specialty boards. The AMA estimates that the address information is 98% accurate and that the change of address rate for the physicians is about 2% per month (personal communication). The following specialties were used to select the AMA-derived list: pediatrics, family practice, general practice, internal medicine, and emergency room medicine. Only primary specialty designation was used.

The Maryland state-derived list combined membership lists of the Maryland chapters of the American Academy of Pediatrics and the American Academy of Family Physicians; the list of Early Periodic Screening, Diagnosis, and Treatment (EPSDT) providers through the Maryland Medicaid program; and the names of Maryland licensed physicians from the Board of Physician Quality Assurance (BPQA) who listed pediatrics or family practice as a specialty. In Maryland, only about one third of licensed physicians have denoted any specialty in the BPQA list. All duplicate names were deleted from the combined list.

The AMA- and state-derived lists were cross-checked for names common to both to produce three groups: names common to both lists (common list), names appearing only on the state list (state-only list), and names appearing only on the AMA list (AMA-only list). A systematic, random sample of approximately 100 providers was selected from each list based on calculations for population-based surveys in EpiInfo 6 software for 95% confidence intervals assuming CVP frequencies of 10% for the AMA-only list, 50% for the state-only list, and 90% for the common list, and allowing for errors of 10% from these estimates. Efforts were made to obtain current telephone numbers for the names on the sample lists using the 1993-1994 membership directory of the Medical and

Table 2. Child vaccine providers in Maryland by specialty

Specialty	Common list total (CVPs)	State-only list total (CVPs)	AMA-only list total (CVPs)
▾ Pediatrics	37 (35)	23 (20)	9 (9)
▾ Pediatric subspecialty	0 (0)	10 (1)	0 (0)
▾ Family medicine	39 (35)	19 (16)	5 (3)
▾ General practice	6 (2)	5 (4)	3 (1)
▾ Emergency room	2 (0)	0 (0)	11 (0)
▾ Internal medicine	7 (1)	2 (0)	48 (1)
▾ Other/unspecified	7 (0)	29 (1)	11 (0)
Total	98 (73)	88 (42)	87 (14)

Chirurgical Faculty of Maryland, the telephone directory yellow and white pages, and directory assistance. Telephone interviews were used to determine if physicians on the sample lists administered routine vaccinations to children aged 18 years or younger and to children aged 2 years or younger, the approximate number of children in these age groups in the practice, the approximate proportion of patients in the practice with insurance coverage for vaccination, and whether the physician had received enrollment materials for VFC that had been mailed by the DHMH to those on the state list. Physicians were considered unreachable if a telephone number was obtained for them but numerous attempts (at least five) to reach them at various hours during the day and evening were unsuccessful or their telephone numbers were unlisted. Physicians were considered untraceable if no telephone number could be obtained using available addresses. Physicians not reached by telephone were mailed a questionnaire with the above questions. Physicians were deemed to be CVPs if they were administering routine vaccinations to patients aged 18 years or younger in Maryland.

Results

The original state-derived list included 2454 physician names, and the original AMA-derived list included 3361 names. Results of sorting the lists into common, state-only, and AMA-only lists are shown in **Table 1**. Also shown are data on the 273 of the 311 sampled physicians (87.8%) who responded to the survey. The proportion of physicians who immunize children aged 18 years and younger was greater on the state-only list (47.7%) than on the AMA-only list (16.1%). Both, however, had a much smaller proportion of CVPs than did the common list (74.5%). Similar results were found for physicians who immunize children aged 2 years and younger. List analysis by specialty is shown in **Table 2**. Physicians on the AMA-only list were more likely to be internists or emergency room physicians who reportedly did not immunize children.

To estimate the true number of CVPs in Maryland, we used the capture-recapture method, in which n is the estimated total number of CVPs in Maryland, n_1 is the total number of names on one list, n_2 is the total number of names on the second list, and t is the number of CVPs on both lists. Using the formula $n = n_1 n_2 / t$, we estimated the total number if CVPs in Maryland to be 2077.[1,2] Based on this total, 71.7% of CVPs were identified on the state-derived list and 59.4% were identified on the AMA-derived list (**Table 3**); the AMA-derived list added only 16.8% when used in addition to the state-derived list.

Table 3. Child vaccine provider identification for both lists

Characteristics	State-derived	AMA-derived
▼ Total number	2454	3361
▼ Estimated number of CVPs (% of total on list)	1489 (60.1)	1234 (36.7)
▼ Percent of CVPs in Maryland*	71.7	59.4

** Based on total number derived by the capture-recapture method.*

Discussion

There is an obvious need for names and addresses of physicians for various purposes, such as the enrollment efforts for the VFC program, state immunization registries, or the provision of medical alerts. Such lists are not available, and efforts to compile them for specific target groups can both omit a significant number of appropriate names and include many inappropriate names, leading to wasted allocation of effort and resources. The above results indicate that both available lists were inadequate to identify CVPs in Maryland. The state-derived list was more inclusive and exclusive than the AMA-derived list. Compilation of the state-derived list entailed combining four different sources of names and deleting duplicates in a labor intensive effort, yet the list still only identified 71.7% of the projected total of CVPs, and it is estimated that almost 40% of those listed are not CVPs. The AMA-derived list, despite being substantially larger, identified only 59.4% of the projected total of the state's CVPs, and it is estimated that about 63% of those listed are not CVPs. Thus, there is minimal benefit in using the AMA-derived list instead of or in conjunction with the state-derived list.

The large proportion of non-CVPs on the AMA-derived list is probably a result of the inclusion of internists and emergency room physicians. Of the active emergency room physicians who were surveyed on that list, none gave routine vaccinations, and of the internists, only two did so. Despite having originated from an apparently inclusive and updated registry of physicians, the AMA-derived list alone apparently would miss many CVPs. Perhaps if both primary and secondary specialty had been used for selection, many more CVPs would have appeared on the AMA-derived list. A list such as that compiled by the DHMH would seem more

beneficial. To keep such a list current, however, is very time consuming.

Implications of the current survey results are broader than VFC enrollment alone. Various programs need the ability to contact physicians in specific clinical areas. Additional relevant examples include the anticipated state immunization registries, physician surveys and education, medical alerts in specific clinical contexts, and product warnings. State licensure information should be the most appropriate data base, but in Maryland the licensure list includes practice specialty for only one third of all licensed physicians. Access is needed to accurate, up-to-date computerized licensure registries that include data on practice specialty area and board certification. In compiling lists to target specific clinical areas, careful attention must be given to the specialties to be included.

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IS EVIDENCE-BASED MEDICINE THE PARADIGM OF THE FUTURE? *(see Call for Papers, p. 257)*

A front-page headline in the May 15, 1995, issue of *Ob.Gyn.News* asked, "Is It Time for the Status Quo to Go?" The article quoted Dr. David A. Grimes, a professor and vice-chairperson of obstetrics, gynecology, and reproductive sciences at the University of California, San Francisco, School of Medicine, as saying, "The way we've been practicing and teaching and learning medicine in the past is making a lot of folks sick—specifically our patients. We have to get rid of pedantry in medical education." At the annual meeting of the Council on Resident Education in Obstetrics and Gynecology and the Association of Professors of Gynecology and Obstetrics, Dr. Grimes reportedly urged his colleagues to abandon the old model of "rule by authority" and embrace the new paradigm of "evidence-based medicine."

A June 1995 issue of *Pediatric News* ran a story describing the work of Dr. Scott Weingarten, director of health services research at Cedars-Sinai Medical Center in Los Angeles, who "is in the business of constructing and validating practice guidelines and clinical pathways." The article quoted Dr. Weingarten as saying, "Going to the peer-reviewed literature and finding out what's best practice is the best strategy. Evidence-based guidelines are the most acceptable to physicians, and I think they can lead to improved patient care while safely reducing costs."

Last year, a new journal, *Evidence Based Medicine,* was launched under the joint auspices of the American College of Physicians and the BMJ Publishing Group. As its name implies, the journal espouses the principles of evidence-based medicine, "the process of systematically finding, appraising, and using contemporaneous research findings as the basis for clinical decisions."[2] In an editorial announcing the new publication, *Annals of Internal Medicine* editor Frank Davidoff, M.D., and coauthors[1] said although the use of evidence in medicine is certainly not new, the randomized controlled trial is now the "gold standard" of therapeutic evidence and "the whole truth may require a synthesis of the evidence from all the best studies optimally through the use of meta-analysis." A similar editorial in the *British Medical Journal*[3] promised that *Evidence Based Medicine* "will publish the gold that intellectually intense processes will mine from the ore of about 100 of the world's top journals."

Advocates of evidence-based medicine believe it "can be used to close the gulf between good clinical research and clinical practice."[2] Critics, however, are quick to point out problems. "Medical practice based on evidence depends on who selected the cases, how firm was the diagnosis, how good was the evidence, and were deductions from the evidence correct? Above all, who produced the evidence?"[4] There is also apprehension that evidence-based medicine "will be used to generate guidelines that decree the treatment of diseases rather than of patients."[5]

"[Those who now manage our health practice] see your beloved evidence based medicine as a means to shackle the doctors and bend them to their will. . . . Beware, Enthusiasticus, that you are not used as a dupe in a political game of health economics."[6]

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Geriatrics for the Clinician

CHRONIC PAIN CONTROL IN THE ELDERLY

In addition to episodes of acute pain, many elderly people experience chronic pain from either a chronic or terminal medical condition. The management of chronic pain is different from management of acute pain in a number of important respects (**Table 1**). Recent guidelines[1,2] and reviews[3,4] have emphasized our improved understanding of this major topic. This knowledge is especially important in treating the elderly because they have twice the prevalence of pain (250/1000) than those younger than age 60 (125/1000) and because modifications in the usual approaches to chronic pain management need to be considered for this diverse population. The elderly require aggressive treatment of their pain, often with more frequent pain assessments for those who are cognitively impaired.

Pain control in the situation of chronic pain is best started by giving simple analgesics on a regular basis, increasing the dose, and then adding opiates and other adjunctive medications to achieve pain relief without sedation. Chronic pain control almost always requires administration of analgesics regularly, in anticipation of pain, rather than just as needed, in reaction to pain. Administration of analgesics for incident pain is given in addition to the regularly scheduled analgesic doses because the degree of pain is not constant during the day and will vary with the patient's level of activity, anxiety, stress, and other factors. If p.r.n. medications have to be given frequently, then the dosage of the regularly administered analgesic is increased or additional regular medications are prescribed. With the elderly, the adage *start low and go slow* is usually appropriate, although elderly people are much more likely to show diversity in their metabolism of medications than younger people. Therefore, they should be frequently reassessed.

Aspirin or another nonsteroidal antiinflammatory medication is the first drug of choice. These medicines are generally inexpensive, effective, and can relieve certain types of pain (e.g., inflammation from bone metastases) better than any other class of medicines. The frequency of gastric irritation, or exacerbation of chronic renal failure, needs to be considered when prescribing these medications for the elderly. Such drugs should usually be given with food and/or antacids to minimize gastric irritation. Choline magnesium trisalicylate (Trilisate, Tricosal) is one nonsteroidal

Table 1. General comparison of chronic and acute pain attributes

Attribute	Acute pain	Chronic pain
• primary pain	A-delta fibers	C fibers
• pathways	myelinated: fast	unmyelinated: slow
• character	often sharp	often dull, aching
	localized	local and general
• meaning	marker for specific illness	meaningless
• drug treatment	one medication	multiple medications
• drug dose	standard by weight	titrated to individual
• dose timing	p.r.n.	regular intervals
• drug half-life	short-acting	long-acting
• drug administration	parenteral	oral
• drug addiction	is a concern	is not a concern
• drug side effects	sedation	liver toxicity (acetaminophen)
	constipation	constipation
	urine retention	
	accumulation of metabolites	

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medication that is usually better tolerated if gastrointestinal upset is a problem. Coadministration of misoprostol (Cytotec) may also be used to minimize gastric irritation.

The next class of drugs to be added are opiates, often given in combination with acetaminophen. Acetaminophen with codeine every four to six hours is generally effective. However, the total daily dose of acetaminophen should not exceed about 2 to 3 grams for a few days or liver toxicity may ensue. The opiates are also constipating and usually require addition of a stimulant laxative such as senna (Perdiem, Senokot, Dosaflex) or bisacodyl (Dulcolax). If an opiate stronger than codeine is required to relieve pain, then oxyco-done (e.g., Percodan), or better still, morphine sulfate, may be started. There is no known maximal dose of morphine: it may be increased as needed to control pain. Long-acting oral morphine preparations (MS Contin, Oramorph SR) may provide a more convenient dosage schedule; additional immediate-release morphine can be used for any breakthrough pain. Parenteral administration of an opiate such as fentanyl (Duragesic) patches—a convenient although expensive modality—or subcutaneous morphine administration by patient-controlled pump is generally reserved for patients who cannot take oral opiates because of dysphagia or gastrointestinal dysfunction. Side effects from opiates in the elderly include a higher incidence of cognitive dysfunction, probably from accumulation of metabolites that are not excreted as quickly because of declining renal function.

Physicians should not hesitate to use opiates in elderly patients with severe chronic pain. As a national clinical practice guideline states: "The elderly should be considered a high-risk group for the undertreatment of cancer pain because of inappropriate beliefs about their pain sensitivity, pain tolerance, and ability to use opioids. Elderly patients, like other adults, require aggressive pain assessment and management."[1]

Of course, assessment for concurrent use of alcohol (a readily available drug for the elderly person who is unaware of its weak analgesic effect) should be regularly considered. If addiction, as opposed to the expected drug tolerance, is suspected, then the benefits and risks of addiction versus pain control need to be weighed by a physician knowledgeable in the treatment of both pain and addiction. Even in such cases, the national consensus panel agreed that "nonopioid analgesic modalities should not be substituted for opioid analgesics to treat severe pain in the suspected or known substance abuser."[1]

Adjunctive medications are often needed and may allow for a lower dose of opiates in patients who experience distressing opiate side effects. They may also provide very specific pain relief. Adjunctive medications include anxiolytics, antipsychotics, antidepressants, steroids, and topical substance P inhibitors. In the elderly, the benzodiazepine lorazepam (Ativan) taken in low oral doses (0.5 mg twice daily or at bedtime) on a regular basis is often helpful in reducing anxiety, thereby reducing the subjective sense of pain and discomfort. Compared to other benzodiazepines, lorazepam is well absorbed when given orally, intravenously, or intramuscularly and is relatively long-acting, a desirable characteristic for chronic pain medications. Other modalities for reducing pain (e.g., radiation therapy, nerve block, physical therapy treatments) may also be of considerable benefit and reduce the need for opiates. Consul-

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tation with one of the many pain centers in Maryland is advisable when pain is difficult to control or a specific pain-relieving procedure is indicated.

Elderly patients should be reassured that their physician will work with them to control their pain. With the technological advances that are now available, pain control should be possible for virtually every patient with physical pain. Chronic pain control can be achieved by knowledgeable and persistent attention, individualized and regularly reassessed.

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NOT ALL PSYCHOSIS IS SCHIZOPHRENIA

Current diagnostic criteria[1] state that a diagnosis of schizophrenia can be made only when it cannot be established that an organic factor initiated and maintained the disturbance. According to Cohen,[2] this criterion may be overlooked, particularly when the patient is a young adult. He states that the presence of the following factors should arouse suspicion that drugs or alcohol may be the cause of psychosis:

- History of frequent admissions, especially if each was followed by rapid recovery.
- Relapse not long after discharge.
- History of violence.
- Any suggestion of clouding of consciousness.
- History of substance abuse.

Stressing the importance of determining etiology, Cohen points out two reasons why misdiagnosis may be harmful. First, it may result in the inappropriate use of antipsychotic medication, thereby exposing patients to potentially incapacitating side effects of drugs they do not need. Second, if patients are not confronted with the fact that their psychotic symptoms are caused by substance misuse, they are prevented from taking the only step—abstention—that could lead to recovery.

According to Cohen, "In today's drug culture, the young patient with psychosis is more likely to have poisoning of his brain than schizophrenia. If a patient is poisoning himself, he or she needs to be rescued; in order to do this, the first step is to make a correct diagnosis."

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A Clinical Moment with Endocrinology and Metabolism

Benign thyroid nodules

Dear Doctor:
A 56-year-old woman is discovered to have a 2 x 3 cm firm left thyroid nodule on routine physical examination. She is asymptomatic and has no history of head and neck irradiation in the past. There is no family history of thyroid disease. Thyroid function testing shows a normal serum thyroid-stimulating hormone (TSH) level. A technetium thyroid scan shows the nodule to be hypofunctioning, and a fine needle aspiration biopsy is performed. The results are benign and consistent with nodular adenomatous hyperplasia (multinodular goiter). What, if anything, should be done now?

Benign thyroid nodules are extremely common, especially in postmenopausal women. Epidemiologic studies indicate 5% to 10% of women in that age group have a palpable thyroid nodule and 30% to 40% have nonpalpable nodules that can be demonstrated by ultrasound.

In the vast majority of cases, thyroid nodules are benign. Fine needle aspiration biopsies (FNAB) have revolutionized the management of thyroid nodules, because they are 95% to 99% sensitive and 99% specific for malignancy. Thus, the number of patients going to surgery for what ultimately proves to be a benign problem has fallen precipitously during the past 10 years.

If a nodule is found to be benign, several management strategies are possible. A trial of observation would be reasonable. In fact, results of one recent study indicate that many thyroid nodules decrease in size or actually disappear with prolonged follow-up. On the other hand, the use of thyroid hormone "suppression therapy" has been in vogue for more than 30 years. The principle underpinning the use of thyroxine in this setting is that suppression of pituitary TSH secretion with exogenous thyroid hormone would be expected to cause the thyroid gland, and perhaps thyroid nodules within it, to shrink. Therefore, thyroid hormone therapy has been widely used to treat thyroid nodules for two reasons: first, as a diagnostic test—if the size of a nodule decreases, it is even more reassuring that the process is benign; second, if the nodule gets smaller, future problems (e.g., compressive symptoms) might be avoided.

The whole concept of thyroid hormone suppression therapy has recently been called into question. Several randomized controlled trials have not shown that thyroxine is any more effective than placebo for shrinking thyroid nodules, although other equally valid studies have shown efficacy. Also, many studies now show potential deleterious effects of thyroxine on the heart (tachycardia, increased ventricular mass) and skeleton (osteopenia) when it is given in doses that are required to suppress the serum TSH to undetectable levels (generally 2 mcg/kg body weight). Therefore, the potential risks of therapy may outweigh any potential benefits, particularly in elderly patients, and postmenopausal women in particular. The unfavorable risk-benefit ratio would be even more unbalanced if the therapy truly is no more effective than placebo.

In my own practice, I do not use thyroxine suppression therapy in postmenopausal women with benign thyroid nodules unless there is clear evidence of growth during long-term follow-up. Even then, I prescribe thyroxine in doses that will lower the TSH to subnormal, but not undetectable levels, to minimize any potential negative effects on the heart or bones. If there is no evidence of an effect on the nodule's growth, the medication is stopped after one year. If there is evidence of efficacy, the dose is decreased to a level that will maintain the serum TSH in the low-normal range (0.3-0.6 mU/L). There is no evidence that thyroxine dosages in this range are harmful. The new, sensitive TSH assays that are now routinely available allow the clinician to titrate precisely the thyroxine dose to meet patients' needs.

In premenopausal women and younger men, I generally initiate thyroxine suppression therapy for the reasons cited earlier. I use the lowest doses of thyroxine that will keep the TSH in the undetectable range and continue it for six to 12 months. If there is no response, the medication is discontinued. If there is a therapeutic response, the dose is decreased to a level that will maintain the TSH in the low-normal range.

Any patient whose nodule grows while on suppression therapy deserves re-evaluation, either with repeat FNAB, or possibly surgical removal.

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James H. Mersey, M.D.
Editor ■

Ethnobotany in Maryland: dittany

On the Appalachian Trail in Maryland one autumn, I came upon a mountain family collecting fragrant armfuls of a native mint called dittany. What for? "To sell in local markets as medicinal tea." Good for what? "All the fevers, especially in children. And snake bite."

In centuries past, while forests were being cleared, rural children and adults succumbed to a variety of febrile illnesses—malaria, typhoid, dengue. Scientific understanding of febrile illnesses, and specific therapies for them, were in the distant future. Remedies were empirical and hopeful. The young city of Washington, marshy, ill-drained, with new-constructed water and sewage systems, suffered devastating epidemics recalled still in place names. For example, Foggy Bottom, now a well-cemented downtown district, had break-bone fever (dengue). Endemic malaria and dengue are almost forgotten except in folk memory and folk medicine. Eighty-three cases of malaria reported in Maryland in 1994 were all incurred elsewhere.[1]

Dittany figured in medical history long before colonial America. Theophrastus[2] hints at its use in anesthesia: "Dittany, a plant especially useful for labor in women: people say that it either makes labor easy, or it stops the pains." European dittany also found use in military medicine. In the battle against the Rutulians, Virgil tells that Aeneas received a wound intractable of treatment inflicted by an unknown archer. While the battle hung in the balance, and his troops despaired,

> Achates supported Aeneus bleeding and lurching back
> To camp, his limping weight leant on a long spear.
> In a frenzy he tugged at the broken arrow-shaft
> Then bid them enlarge the wound with a broad sword
> Down to the hidden barb as the readiest method
> Of easing the pain and getting him back to the fight.

Iapyx, the army physician, came—

> His garments taut about him in the manner
> Of Paeon the God of doctors, tried his skill,
> Tried everything he knew, every single one
> Of Apollo's potent herbs—but nothing worked.
> He tried to ease the arrowhead with his fingers
> And then with his forceps—neither worked at all.
> Nor fortune favored him, nor his patron Apollo.
> But Venus...picked from Mount Ida in Crete the plant Dictamnus.
> Its stalk stands high with leaves, its flower is purple,
> And the wounded goats eat it when they have (fluttering) arrows
> Stuck in their backs—and, cloaked in a cloud of mist
> She carried this plant down and infused with it
> The waters they had poured into an urn,
> And added tonic ambrosia, a scented panacea,
> And nobody knew it. Old Iapyx knew nothing,
> As he bathed the wound with the water ignorant
> Of its powers—but suddenly all the pain Aeneas
> Had felt vanished, and the wounds' bleeding stanched.
> Then of itself, without anyone freeing it,
> The arrowhead fell out into his hand
> And Aeneas was restored to his full strength."[3]

A Pompeian fresco done before 79 AD shows the hero, his weeping son, the wound, the physician at work, and Venus attending with dittany in hand.

The dittany of Crete is *Origanum dictamnus*, a member of the mint family (Labiatae). A relative, *Origanum vulgare*, wild marjoram, now used for seasoning and the source of an essential oil, has scarlet flowers; American colonists from Europe introduced it as a medicinal tea. *Marjoram hortensis* is the culinary marjoram. The herb oregano, which refers to several mints and vervains, is not origanum. The American plant called dittany is *Cunila origanoides*. Perennial,

blooming July to October, it is distributed from Florida to Texas to New York, Illinois, and Oklahoma.[4,5] In Maryland, the plant commonly grows in dry open woods. It may be 30 cm tall, much branched and leafy, with a tough wiry stem. The entire plant is aromatic. The numerous, clustered flowers are purplish or pink-red with prominent exerted stamens. Like many wild mints, it resists transplanting. Its preference for light, sandy, even rocky soil earned it the mountain name "stone mint."

Dictamnus was a Cretan goddess, sometimes equated with Artemis, sometime a surname for Artemis. Dictynna ("net") refers to her escape from erotic pursuit by Minos: she threw herself into the sea and was retrieved by fishermens' nets. The Cretans called her Dictynnian Diana, "the natural mother of all things, with all power of herbs and medicines of health."[6] Her plant grows wild on Mount Dicte, in Crete.

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Cross-cultural considerations in health care delivery: Chinese viewpoints

Cultural diversity in the United States is a major consideration in politics, economics, education, and health care. A large component of this multicultural identity is represented by persons of Asian ancestry. Although significant Asian immigration dates back to the nineteenth century, 1990 census figures reflect a 347% increase in the Asian population over figures for 1980.[1] This means that physicians are likely to see increasing numbers of first-generation Asian patients.

There may be significant cultural differences between patients who grew up in Asia and physicians who grew up in the United States. I would like to offer some insights into medical care and attitudes among the Chinese using a group of five barriers to clinical care identified by Margaret Clark[2] to relate my 14-year experience with health care and medicine in Taiwan.

Margaret Clark noted that cultural barriers to clinical care can be divided into five main categories:

- language use and nonverbal communication patterns;
- medical roles and responsibilities;
- explanatory models of disease;
- contextual factors; and
- emotional impact and stigma.

I would like to discuss these barriers briefly, linking them to my studies of classical Chinese literature and my experience living in Taiwan. Unless noted otherwise, my references to medical experiences in Taiwan are all within the framework of Western medical practice. I rarely used traditional Chinese medicine.

Language use and nonverbal communication patterns

When dealing with a non-native English speaker, it is natural to assume that the health care professional will make special efforts to ensure that meaningful communication occurs. Difficulties arise, however,

because it is easy to overlook the hidden dimensions in multicultural communications. The greater my fluency in Mandarin Chinese became, the more I yearned for a course in unspoken Chinese. One of my favorite examples of the phenomenon is illustrated by the following example.

In section 3.15 of the Confucian *Analects,*[3] Confucius visits a temple to take part in a ceremony. When he arrives, he is introduced as an expert in ceremonial practice. The text says that Confucius then asks how each part of the ritual would be conducted. Apparently vexed by this situation, one of those present says, "If this person, Confucius, is an expert in ceremonial practice, why does he have to ask in such detail about our practices?" Confucius replies, "That is the essence of correct ceremonial practice."

Although aware of his renown as an expert in ritual practice, Confucius recognized the need to determine whether there were special circumstances that might affect his professional ability to conduct the ceremony. In other words, to minimize the chances of doing something inappropriate, his first obligation as an expert was to find out what differences, if any, might be involved. What is sometimes overlooked in this passage is the standpoint of the local person who questions Confucius' expertise. This person was probably a well-educated member of the local gentry and an expert in ceremonial practice in his own right. He represents the unfortunately common group of "experts" who are frequently ignorant, if not actually resentful, of the significance of cultural differences. Confucius regards his expertise as resting in the fact that he knows that he needs to ask, that unquestioned assumptions based on supposed expertise can lead to trouble. Such differences, both then and now, frequently revolve around communications.

During the time I lived in Taiwan, I went to one family physician, Dr. Han, who had graduated from medical school in mainland China, completed a residency in cardiology at Vanderbilt, and then returned to Taiwan. I developed a great trust in his abilities, but in our dealings kept in mind that we were from greatly different cultures. For example, I was once planning a trip by sea from the northern Taiwan port of Kyi-lung to the Japanese port of Osaka. I had been told that the East China Sea could be quite rough, and that I should try to get some Dramamine before I left. I had to see Dr. Han for a vaccination, and as I was leaving his office, I remembered to ask if I could buy Dramamine in Taiwan. Dr. Han replied that Dramamine was not sold in Taiwan. I began to leave the office wondering how I was going to deal with a two-day voyage that often resembled a roller coaster ride. I caught myself at the door and said, "Dr. Han, can I buy something *like* Dramamine in Taiwan?" "Of course," he answered.

Volunteering unsolicited information, even when useful, was punishable by death under the first unifier of China, the Chin Shih Huang Emperor. Although no longer a capital offense in China, volunteering information is still regarded in many situations as rude. I remembered this at the last moment and fortunately was able to obtain the information I needed.

Medical roles and responsibilities

Margaret Clark notes, "In general, most members of ethnic minority groups in this country are unwilling to relinquish to medical personnel complete control over the care of a patient, even in acute care settings."[2] My most vivid memory from my first visit to a Taiwan hospital was the number of nonmedical staff present. The patients' rooms were chock-a-block with family members. The person I went with told me that most of the patients ate food brought from home rather than the food prepared in the hospital, and that smaller hospitals did not even offer patients food. Bathing, changing bed linens, and many other hygiene-related functions in the hospital also were normally the province of the family. I also learned that at least one family member usually stays with the patient 24 hours a day, even when the confinement is for a routine procedure.

Physicians in Taiwan know that their hospitalized patients are probably receiving homemade tonics and herbal soups designed to strengthen physiologic functions and bring the humors back into balance. For many people in Taiwan, Western medicine is a form of complementary medicine, recognized for its abilities to deal with the more acute manifestations of the more basic problems that Chinese medicine diagnoses. Because

these and similar views stay with the Chinese when they live outside of China, fatal consequences can result when a health care provider ignores the likelihood that the treatment he or she is providing is probably not the only one the patient is receiving.

Explanatory models of disease and contextual factors

I rarely think much about the causes of my routine illnesses. I am a human being and human beings get sick; that's that. This is not true for many Chinese. Most of my Chinese friends and colleagues, who generally were quite well educated, believed that the body is regulated by what were once known in the West as humors.[4] Illness frequently results from imbalances in these humors, which Chinese are raised to recognize. U.S. health care providers who are aware of this aspect of a Chinese person's perception of illness will be able to obtain information about the problem more easily than if this perspective is unknown or ignored.

Recognizing the many different ways in which illness is viewed and communicated (or not communicated) in different cultures, Kleinman and associates[5] developed the following cross-cultural interview model for physicians:

- How would you describe the problem that has brought you to me?
- What do you think is wrong, or what is causing your problem?
- Why do you think this problem happened to you?
- Why did you decide to come to me for treatment?
- Apart from me, who else do you think can help you get better?
- Has anyone else helped you with this problem?

These questions are designed to obtain a wider spectrum of information than just the nature of the physiologic problem at hand.

I also found that there is a heightened need to determine a suitable precipitating factor underlying the physiologic cause of death. When my mother died at age 75 after a long illness involving heart problems and complications from a former illness, I regarded her death as the final episode in the disease and aging process and did not look for any immediately precipitating factor. My Chinese friends were baffled by my lack of interest and proceeded to supply me with a variety of possibilities to explain why her death occurred when it did. The most acceptable explanation was that my wife and I had just spent several weeks at home and that following my departure, my mother decided that she could die happily and thus did so. This became the generally accepted interpretation of the actual reason why she died, and my mother was praised as a very loving individual. For many Chinese, death has a contextual underpinning that is equal to or more important than any organic cause.

Imagine yourself a physician who has taken care of an elderly Chinese. He passes away in his sleep following a period of gradual decline. Your diagnosis of the cause of death is heart failure. When you tell this to the family, they say, "Yes, but why did he die?" If you become defensive in the face of what appears to be a challenge to your medical expertise, or if you say that you do not know why his death occurred on that particular night rather than at some time before or after, the family may be quite disappointed in you. If, in the light of Kleinman's cross-cultural interview questions, you ask, "Why do you think his death happened when it did?" the family would probably come up with a suitable context for the death. You could say a few words neither denying nor agreeing with their interpretation, and everything would be fine.

Emotional impact and stigma

My experience in this regard is limited, which indirectly bears out the power of these factors. I still remember the difficulty Chinese people have with the Western concept of alcoholism: that it exists, that willpower alone is insufficient to overcome it, and that it is a condition frequently requiring both medical intervention and rehabilitation. Given the almost ferociously patriarchal makeup of most of China's social structure, the unwillingness to accept the Western model of personal "helplessness" for a condition largely affecting men should not be surprising. Clark also refers to the stigma that mental illness carries in general for minority populations. This is very much the case with the Chinese. One of the Chinese consultants with whom I worked had a masters degree in clinical psychology from a U.S. university. She frequently lamented both the lack of facilities for mental health care delivery in

Taiwan and the refusal of many Chinese people to accept such an option for family members, even when the need was clearly present and facilities were available. On the other hand, this situation also reflects the strong cohesiveness of the Chinese family. Stockman notes that the family system is used far more than in the West to deal with psychiatric problems, and that Chinese society generally has a higher threshold of tolerance for abnormal behavior than is found in Western industrialized societies.[6] This can be further seen in comparative figures for percentages of patients with chronic schizophrenia who live with their family: 40% in the United States and 90% in China.

Clark notes that there are significant cultural barriers to clinical care from the standpoints of language, medical roles, explanatory models of disease, contextual factors, and emotional impact and stigma. These barriers certainly hold true from my experience in Taiwan, where cultural traditions affect health care across the board, regardless of educational background or social position. If this paper heightens awareness of the significance of these differences, it will have served its purpose.

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Having observed that many Chinese who visited the emergency department at Beth Israel Medical Center in New York used traditional Chinese therapies, Pearl and colleagues[1] surveyed a convenience sample of first- and second-generation Chinese immigrants to characterize their use of traditional therapies. Because a search of the medical literature disclosed no epidemiologic data on the use of traditional Chinese therapies by such populations, the questionnaire was based on the personal knowledge and experience of two of the investigators, who are first-generation Chinese immigrants. Prepared in both English and Chinese, the survey asked about participants' use of 15 herbs and six physical healing arts. Of the 76 patients in the study population, 33 (43%) reported having used at least 1 Chinese therapy within 1 week of their hospital visit. Ginseng was the most commonly used single herb, followed by an herbal mixture the contents of which were unknown to the patient.

Despite the various limitations of the study, the authors believe their findings confirm a clinically significant prevalence of the use of Chinese therapy in the population studied. They recommend that Western physicians who care for Chinese ask specifically about the patient's use of traditional therapies. The authors further recommend that, unless the traditional therapy is clearly detrimental (e.g., ginseng may produce an abuse syndrome characterized by hypertension, diarrhea, and dermatitis), its use should not be discouraged. As they state, "Chinese traditional medicine, although 'alternative' in our society, remains the initial therapy of choice for many Chinese-Americans."

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MARYLAND MEDICAL HISTORY

John Fonerden, M.D., Med Chi's first librarian



The library of the Medical and Chirurgical Faculty of Maryland is now 165 years old. When the first volumes were assembled, the bricks and mortar of the Shot Tower and the gleaming white marble of the nation's first monument to George Washington in Baltimore had only recently been set in place. Med Chi, chartered by the state legislature in 1799, had functioned without the benefit of a professional library for more than 30 years. As a result of a proposal to the organization made by Dr. Samuel Baker in June 1830, the Med Chi library was established and Baker appointed the first chairperson of the Library Committee.[1]

Among the members of this hastily assembled committee was a young physician named John Fonerden, an 1823 graduate of the University of Maryland medical school. Soon after the library's establishment, Fonerden was appointed the first librarian, awarded an annual salary of one hundred dollars, and directed to circulate the modest collection from his home.[2]

Although Fonerden's name may be unfamiliar to most of the current members of the medical profession in Maryland, such was not the case in the mid-nineteenth century. The reputation of Dr. Fonerden was respected not only in clinical practice, but in hospital administration, academic medicine, and philanthropic and bibliophilic circles. He was known for his oratorical skills and as an advisor to a number of influential citizens of the state.

He was born January 22, 1804, of German immigrant parents. His father anglicized the family name, Von Erden.[3] The facts of John Fonerden's childhood and early education are unknown, but his intellectual prowess is attested to by his entry into and completion of medical school by age 19. While at the University of Maryland medical school, he undoubtedly came under the influence of some of the founding members of Med Chi, such as John Davidge, Elisha De Butts, Nathanial Potter, and Samuel Baker. Although American medicine was in its infancy, it was clearly beginning to emerge from the shadows with each advance in scientific knowledge. It was during Fonerden's

medical school years that Jenner's technique of vaccination to prevent smallpox was being cautiously applied, although cholera and yellow fever were relentlessly plaguing Baltimore unimpeded by anyone's having even the slightest notion of their etiology. Davidge removed an entire parotid gland; Samuel Annan performed the first tracheotomy in Maryland; and the professor of surgery, Granville Sharpe Pattison, found himself challenged to a duel that eventually led to his less than honorable departure from the university.

Following graduation, Fonerden received a succession of appointments indicating that he had a broad range of interests and abilities.[2] He became associated with the Baltimore General Dispensary as an attending physician and also received an appointment as a city physician in 1832, serving during the course of a particularly deadly epidemic of cholera in Baltimore. The year before, he had held the office of president of the Medico-Chirurgical Society, an organization founded in 1830 and first presided over by Dr. Samuel Baker. Under the leadership of Drs. Baker and Fonerden, that society had the distinction of promulgating the first codifications of medical ethics in America.

Designated recording secretary of Med Chi from 1828 through 1834, Dr. Fonerden was elected orator for the 1833 annual meeting held at the Athenaeum in Baltimore. He served on numerous occasions as a delegate to the American Medical Association. He served for many years as chairperson of the Executive Committee and eventually rose to the presidency of Med Chi. Although he does not seem to have taken any additional training or even an apprenticeship, in 1845 he apparently qualified for the appointment as professsor of obstetrics and diseases of women and children at the Washington University in Baltimore. The following year, at age 42, he accepted the position from which his reputation as a highly effective administrator was gained and the one which he held for the remainder of his life. He became the medical superintendent of the Maryland Hospital for the Insane. He also served on the board of visitors of the asylum along with Mr. Enoch Pratt and Mr. Johns Hopkins, to whom he was a personal friend and medical advisor.

In 1852, the state legislature proposed that the asylum be moved from its location in the city to a new site in the county.[3] Although the move did not occur for nearly two decades, the institution, which had originally been a general hospital before limiting its admissions to patients with mental disorders, continued to flourish under Dr. Fonerden's leadership. He gained considerable reputation as an alienist, consulted privately, and was called upon to give his expert testimony in court.

In 1867, Dr. Fonerden was chosen to become a member of the boards of trustees of both the university and hospital that Mr. Hopkins proposed to fund. During the preceding fifteen years, during which he enjoyed a special relationship with Dr. Fonerden, Mr. Hopkins was undoubtedly influenced considerably in the formulation of his plans for the dual institutions. When the legislature finally chose to move the location of the asylum, it was on its former site on the hill that the Johns Hopkins Hospital was built.

John Fonerden was an intellectually gifted man with many interests outside the scope of his professional responsibilities. He was active in the affairs of the Maryland Historical Society, and he was chairperson of the section of psychology of the Maryland Academy of Sciences. His demeanor was kind and pleasant and his approach to problem solving was clear, decisive, and unambiguous.

Unfortunately for Dr. Fonerden and the community, his death came in 1869, before he had the opportunity to fulfill his appointments to the boards of the Johns Hopkins University and Hospital. Mr. Hopkins attended the funeral of his friend, and it is claimed that the following day sent the family a check to pay for services Dr. Fonerden had rendered him without sending a bill.[3]

John Fonerden's accomplishments as a citizen of Maryland, a practicing physician, and a highly visible participant in the activities of the fledgling Med Chi deserve our recognition. "He seemed as one born almost out of time; as one who brought the manners of an earlier period down to this our modern, practical, distinction-levelling, and respect-destroying time."[4]

RONALD H. FISHBEIN, M.D.

Dr. Fishbein, a general surgeon and associate professor of surgery at The Johns Hopkins University School of Medicine, is chairperson of Med Chi's Council on Scientific Affiars, Bicentennial Ad Hoc Committee, and Library and History Committee.

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John Ruhrah, M.D., a colleague to emulate



"Heaven from all creatures hides the book of fate." Alexander Pope

On September 26, 1872, a child was born in Chillicothe, Ohio, who was destined to influence a wide spectrum of physicians and the laity, especially in the Baltimore area and more particularly in pediatrics. Probably because his maternal grandparents were Baltimoreans, John Ruhrah elected to choose that city for his higher education and career.[1] He graduated as a physician in 1894 from the College of Physicians and Surgeons in Baltimore and during the following three years served an internship and residency at the Baltimore City Hospital (now Mercy Medical Center). He then did postgraduate study at the Institut Pasteur and in Vienna and Berlin for an additional three years.

Sir William Osler recognized John Ruhrah as one of the most brilliant of the younger men. Ruhrah's initial work, which gained him some recognition, was the first extensive study in the United States of actinomycosis.[1] In 1904, he wrote a manual entitled *Diseases of Infants and Children.* During the ensuing years, he wrote six more books and contributed to Osler's *Modern Medicine,* Nelson's *Living Medicine,* Tice's *Practice of Medicine,* and Abt's *Pediatrics.* His interests in history, biography, and the permanent recording and maintenance of information led him to write a *History of Pediatrics* and many biographies, including a *Life of Sir William Osler,* which was published after Dr. Ruhrah's death. It was a motivating force that induced him to press for a new library building at the Medical and Chirurgical Faculty of Maryland and to become editor of the *Bulletin of the Medical Library Association.*

Dr. Ruhrah lived at 11 East Chase Street in Baltimore and had his office in the same building. Despite having an active practice, a busy schedule as professor and head of the division of pediatrics (then a unit of the department of medicine) at the University of Maryland from 1916, and continuous engagement in organized medicine and writing, he preferred to see his patients in their homes. When he arrived at the home, if the mother called down, "Don't come up yet, doctor, I'm not ready," he strode up the stairs anyway, saying, "I didn't come to see you, I came to see the baby."

Dr. Ruhrah had a wonderful sense of humor. His friends found him a joy to associate with and he seemed to have boundless energy for his patients and associates. He was an avid reader and scholar, consuming knowledge from volumes written not only in English, but in German, French, Spanish, Italian, Russian, and Latin.[2] He enjoyed music, subscribing every season to the offerings at the Lyric Opera House and regularly attending the Friday presentations then offered at the Peabody Conservatory. Despite his affection for classical music, however, he had a special love for Gilbert and Sullivan. He apparently was attracted not only by their music, but by their not so subtle wit. One of his biographers quoted him as saying that he also had a list of bores whom he would not miss. Heading the list were those who greeted him with, "You don't know me, I bet. Now who am I?" Dr. Ruhrah is said to have invariably replied, "If you don't know yourself, how do you expect me to know?"

Dr. Ruhrah was president of Med Chi in 1919, president of the American Pediatric Society in 1925, president of the Osler Historial Society in 1933, and president of the American Academy of Pediatrics in 1934. Although Dr. Ruhrah served Med Chi in many capacities, the interest closest to his heart was the library; he served as chairperson of the Library Committee for more than a decade.[5]

A bachelor, Dr. Ruhrah was often asked by his friends when he planned to marry. He answered, "I'm getting more selective and less desirable each year."

Since its inception in 1830, the library was constantly outgrowing its space. When Dr. Ruhrah became associated with it, it had been moved six times and was again in need of room to accommodate its volumes. He worked as a member of the Building Committee to acquire funds that in 1909, resulted in the construction of a more adequate structure at its present location.

Dr. Ruhrah further demonstrated his civic conscience by his service on the Baltimore City School Board during the latter years of his life. His endeavors resulted in the establishment of a school for disabled black children (in the days of school segregation). Elementary school #228 in the 700 block of South Rapolla Street in Baltimore is named in his honor.

Early in life, Dr. Ruhrah was afflicted by ill health. Shortly after becoming a physician, he developed a pleurisy of suspicious origin, which frightened him considerably. As result of his health problems, he developed a spartan routine that included eating only an apple for breakfast, toast for lunch, and a meager dinner; he never ate or drank anything after his evening meal. Also, because of a tendency to edema of his lower extremities, he regularly retired before 8 p.m.[3] (Could a deficiency, such as in proteins, have been responsible for the dependent edema?)

An extensive traveler, in 1917 Dr. Ruhrah wrote a treatise entitled *Polio in All Its Aspects*. Thirteen years later, following a meeting at the International Pediatric Congress in Stockholm, he developed the dread disease himself. After a long illness, he recovered sufficiently to return to a semblance of his previous activities, including traveling, but residual weakness in his lower extremities required him to

I have a personal fondness for Dr. Ruhrah. As a child, I had constantly recurring respiratory infections, for which Dr. Ruhrah visited me almost weekly. After months of little success, Dr. Ruhrah suggested a series of injections. He honestly admitted that he had little faith in what he was suggesting, but he had tried everything else known at the time. To everyone's amazement, the weekly injections eliminated the respiratory infections. Delighted, Dr. Ruhrah gave an empty vial to my mother and suggested that if I had a recurrence, I be given another series of injections. When the infection returned several years later, the medication again eliminated the problem. Years later, I considered using it for some of my patients, but found that the drug, Lederle's Catarrlis Combined, was no longer on the market.

modify some of his prior physical activities. Redirecting his abundant energies, he wrote 12 articles on a wide variety of topics that were published in the *American Journal of the Diseases of Children* between January and June 1935, several published after his untimely death of a cerebral accident on March 10 of that year.

The good that Dr. Ruhrah performed in his lifetime, by his compassion, hard work, and foresight, lives on. After his death, his will bestowed on Med Chi "so much" of his personal "library as it chose to take," a collection that contained more than a thousand volumes.[6] In addition, his residuary estate (which, in 1935, was expected to amount to approximately $100,000) was to constitute a fund, the income of which was to be used primarily for the benefit of the Med Chi library. Thousands who never knew Dr. Ruhrah have benefited, as will future generations, from the beneficence of this physician.

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SECOND-HAND SMOKE: 1907

The Baltimore City health commissioner has warned ladies to beware of the tobacco heart, even if they have never in their lives tasted tobacco and never expect to taste it. He cited a case reported from one of the hospitals "where an eminently respectable woman . . . is reported by her physicians to have symptoms of a tobacco heart, in addition to other trouble."

"Of course it is possible for a woman who does not smoke to have a tobacco heart," said Health Commissioner Bosley. "Not only possible, but very probable. As I understand this case, the lady in question had been living in a tobacco-smoke infected atmosphere for years. First her father, then her brothers, next her husband, and finally her sons, all smoked. In the winter time especially, when the house is tightly closed during most of the day, she was living entirely in a smoke-filled atmosphere.

"It was natural that she and the hundreds of other women who live under the same conditions should inhale tobacco smoke. It is the inhaling of the smoke that hurts. . . . Women living under the conditions I describe are actually eating tobacco smoke for long periods, and although they do not feel the ill effects at the time may eventually develop a tobacco heart."[1]

According to John Harvey Kellogg, M.D., LL.D.,[2] "Tobacco paralyzes the heart, and gives rise to what is known as 'tobacco' heart. A man suffering from tobacco heart is short of breath. . . . The effect of tobacco on the blood-vessels is shown by the fact (stated by Professor Janeway, of New York, an eminent authority on diseases of the heart) that a single cigar will, in thirty minutes, produce a rise of blood-pressure amounting to twenty points."

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COMING OUT OF THE DARK

Med Chi's Physician Rehabilitation Committee deals with the substance abuse and mental health problems of Maryland physicians, with a confidential and nondisciplinary focus...Addiction, Marital/Family Conflicts, Psychiatric Illness, Organic Impairment, Physical Handicap...If these problems exist, we can help find the solution. Call us.

The Physician Rehabilitation Committee of Med Chi is available to all Maryland physicians, and their families. The Committee is NONDISCIPLINARY and information is kept CONFIDENTIAL. If you, a colleague, or family member is in need of our services call (410)962-5580 or call toll free (800)992-7010, or leave a message 24 hours a day.

HELPING IS OUR BUSINESS...All donations to the Physician Rehabilitation Committee are used for the delivery of services to Maryland physicians in need of help. If you wish to help further the work of the Committee through a tax deductible donation send your check to: The Medical and Chirurgical Faculty Charitable/Educational Foundation, 1204 Maryland Avenue, Baltimore, Maryland 21201 Please note on your donation: "Physician Rehab"

Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

Books, Etc.

Treatments of Psychiatric Disorders. Second edition, volumes 1 and 2. Glen O. Gabbard, M.D., editor-in-chief. Washington, DC: American Psychiatric Press, Inc. 1995. 2800 pages. Hard cover, $250.00.

The second edition of *Treatments of Psychiatric Disorders* provides a comprehensive reference to modern psychiatric treatments. It is keyed to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), the 1994 revision of diagnoses of psychiatric disorders. Editor-in-chief Glen O. Gabbard M.D., has assembled authoritative authors who are knowledgeable expert clinicians. Many of the authors and section editors have worked on DSM-IV and are familiar with the latest data about psychiatric diagnosis and treatment. The chapters discuss the patient as a person, with sensitive and thoughtful consideration of the person who is suffering with the illness. Most important, in this age of potent psychiatric treatments with known efficacy, we have a guide to making informed choices for our patients. Physicians, other health professionals, and the public should know about this book, since it chronicles our current knowledge about effective treatments for psychiatric conditions that affect up to a quarter of the population.

The two-volume book is organized into thirteen sections, each covering a major category of psychiatric diagnoses (e.g., mood disorders, delirium, dementia, amnestic and other cognitive disorders, substance-related disorders). Each section begins with an introduction that provides an orientation to differential diagnosis and treatment selection. The authors frequently refer to associated general medical disorders that might affect the course of illness or response to treatment. All literature citations for a section are placed at the end of that section, for efficiency; this does mean extra page-flipping for the compulsively curious reader. References are thorough and up-to-date, and often illuminate controversies.

In the introductory section, Dr. Gabbard discusses "Mind and Brain in Psychiatric Treatment"; this is an excellent orientation to biopsychosocial psychiatry. Other introductory chapters deal with gender and cross-cultural differences in presentation and treatment of psychiatric disorders. The authors of the first chapter, on the multiaxial system, conclude by stating, "Because five separate domains of information are addressed, the clinician is encouraged to look beyond the immediate clinical presentation and to consider other factors that are influential in treatment planning." This establishes the theme for the entire book, assessing and treating the person who has the illness.

Substance abuse is given prominent discussion, with detailed material covering many aspects of treatment. I was especially pleased to see a good chapter within the section on child and adolescent disorders. The main section on substance-related disorders includes discussions of treatments that include counseling and psychotherapy, medications, family therapy, residential treatment, and twelve-step programs such as Alcoholics Anonymous. The strengths and shortcomings of these treatment choices are treated thoroughly. Chapters are coordinated so the clinician can understand how to use an integrated approach selecting several treatment modalities.

Mood disorders are common and contribute to disability more than do many other major medical conditions. I

have therefore chosen the mood disorders section as an example of the work discussed in this text. This section is edited by A. John Rush, M.D., of Texas, and David J. Kupfer, M.D., of Pittsburgh, two distinguished authorities on mood disorders. In his introduction, Dr. Rush points out that each chapter combines group-based data on treatments and treatment response, with the individual patient-based approach of the clinician. Case vignettes illustrate this combination of science and clinical practice well.

Chapters include antidepressant and antimanic medications, reeducative psychotherapies (such as cognitive-behavioral and interpersonal psychotherapies, both of which have proved valuable in treating many people with depressive illnesses), psychodynamic psychotherapies, combined medication and psychotherapy, electroconvulsive therapy, and light therapy. These treatment modality-focused chapters are followed by two that integrate modern knowledge and experience in difficult cases. One addresses management of treatment-resistant mood disorders. The following chapter, by psychiatrist-internists James G. Peden, Jr., M.D., and Roger Kathol, M.D., discusses the treatment of mood disorders occurring in the context of general medical disorders. As Dr. Rush puts it: "General medical disorders constitute major risk factors for the development of mood disorders. Further, when mood disorders occur in the context of general medical conditions, they are associated with greater morbidity and mortality. Finally, the presence of general medical conditions makes the diagnosis, treatment, and ongoing clinical management of the mood disorders quite complex."

This chapter is invaluable for psychiatrists and of great interest for all other physicians whose patients may need treatment for mood disorders. It distills a wealth of clinical experience, is well organized, and has excellent references. Informative tables such as "Selected general medical conditions in which affective symptoms can be prominent," along with the good layout of text subheadings, make it easy to find discussions specific to a particular patient. The section on therapeutic issues in specific medical conditions covers cardiac disorders, neurologic disorders, gastrointestinal disorders, and metabolic disorders. The ensuing discussion recommends an approach of consultation and continuing care. Primary care physicians and psychiatrists need close communication and teamwork, and this chapter can help improve the care of these challenging patients.

This is a large and highly accessible book. Thorough and informed discussions of modern psychiatric treatment strategies and tactics, with sound data on likely treatment outcomes, will guide clinicians to work better.

John Chapman Urbaitis, M.D.
Dr. Urbaitis is psychiatrist-in-chief at Sinai Hospital of Baltimore and an assistant professor of psychiatry at The Johns Hopkins University School of Medicine.

■ ■ ■

How We Die. Reflections on Life's Final Chapter. Sherwin B. Nuland, M.D. New York, NY: Vintage Books. 1995. 278 pages. Soft cover, $13.00.

Anyone who's going to die ought to read *How We Die* by Dr. Sherwin Nuland, a surgeon on the faculty of Yale medical school. He has written a book appropriate for both physician and layperson that goes a long way toward demystifying death.

Early on, Nuland puts us self-important humans right in our place in nature by pointing out that we must die, like all other living creatures, in order to leave space and resources for the continuation of the species. A major theme of the book is that death is an inevitable and natural part of life.

Starting with a lucid explanation of the cardiovascular system and its oxygen delivering function, Nuland explains that oxygen deprivation to the tissues is the "final common pathway" in everyone's demise. No one really dies of anything

To Our Readers

The Editorial Board of the *Maryland Medical Journal* invites you to submit reviews of books, videos, and films of interest to the medical profession. Bringing your evaluation and analysis to the attention of your colleagues will be informative and stimulating. Send your report to: Chris Papadopoulos, M.D., Review Editor, *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201.

else; this he has confirmed with a coroner. The book is organized around the most common terminal diseases—cardiovascular disease, Alzheimer disease, cancer, trauma, and AIDS. He explains how each disease in its own special way deprives its victims of oxygen.

Old age, too, is treated as a cause of death. Nuland insists that doctors ought not assign other diagnoses such as congestive heart failure or renal failure to the elderly who die simply because their bodies have worn out. His lengthy and touching description of the gradual decline and death of his own beloved grandmother is quite vivid because it is told from the viewpoint of the teenaged boy who shared her bedroom in a small Bronx apartment.

Ever mindful of the patient as a whole person, Dr. Nuland thinks that the compulsion to solve "The Riddle," to discover the physiologic cause of a patient's signs and symptoms, drives too many doctors too far. Since many diagnostic maneuvers cause discomfort, doctors have to relearn when to stop. Generalists are better at this than specialists, a bit less fascinated by "The Riddle." So too with therapeutic interventions. The author takes a dim view of those doctors who rob patients of comfort and dignity in the last months by offering still more treatments and then abandoning them during their final days.

Far from being a therapeutic nihilist, however, Dr. Nuland argues against assisted suicide in most situations. He points out that most elderly who kill themselves are suffering from treatable depression that a long-time family doctor would probably recognize.

The author knows where science ends and art begins. Throughout the book, one can almost see him at the bedside, respectful and compassionate. He is still beating his breast for withholding the dismal diagnosis from his own brother who was diagnosed with advanced colon cancer. He describes his frustration with the arrogance of the doctors involved in the case. Any doctor who has ever served as the "medical interpreter" during the serious illness of a beloved family member will identify with his angst.

Dr. Nuland brings to the book (and to his patients) not only a thorough knowledge of medicine and years of clinical experience, but also a breadth of knowledge of the humanities. He is well versed in the Bible, Seneca, and Tolstoy, as well as in the history of medicine. Consequently, he has written an engaging book on a topic about which most of us are in denial.

Mary B. Flannery, M.D.
Dr. Flannery is a senior attending pediatrician at the Herkimer Health Center, an affiliate of the Mary Imogene Bassett Hospital in Cooperstown, New York. ■

ER is a top-rated television program created by a well-known novelist and medical school graduate, Michael Crichton. As a medical show, it has generated much interest. What do you think of it? We would like to have your comments and critique. Send them to *MMJ* Reviews, 1211 Cathedral Street, Baltimore, MD 21201. ■

What Your Patients
MAY BE READING

- "What Killed Karen Smith? Death By HMO—One Woman's Horror Story"
  Glamour, February 1996
- "HIV Testing: Keeping It Confidential"
  MS., Vol. VI No. 4
- "Is It Serious? How to Tell the Difference Between Symptoms That Require a Doctor's Attention and Those You Can Treat Yourself, or Ignore"
  Good Housekeeping, February 1996
- "Making Sense of Kids' Medicines"
  Child, February 1996
- "Mismanaged Health Care"
  Vogue, February 1996
- "Clinical Depression Nearly Killed Me"
  Sassy, February 1996
- "12 Things Your Gynecologist Forgot To Tell You"
  Marie Claire, February 1996
- "Coping With Scoliosis"
  Cosmopolitan, February 1996
- "Too Fat? Too Thin? Sizing Up Babies' Weight"
  Parenting, February 1996
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  Cosmopolitan, February 1996
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  Runner's World, February 1996
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  Self, February 1996
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  Redbook, February 1996
- "Teens & Tobacco"
  Teen, February 1996
- "Why Miscarriages Are on the Rise"
  Self, February 1996



WE NEED A DOCTOR IN THE HOUSE

DOCTOR OF THE DAY 1996

Note: All Monday dates are evening sessions, beginning at 5:00 pm and ending at 9:00 pm. For more information, call Joyce Yensen at Med Chi's Legal Department, 410-539-0872 or 1-800-492-1056, toll free in Maryland.

When the Maryland General Assembly convenes in Annapolis for its 1996 session, the Medical and Chirurgical Faculty will be there. Since 1964, Med Chi has staffed the first aid facility operated during the 90-day legislative session. Come join us at the state capitol building and see law being made firsthand. One doctor a day is all that is needed to care for the public, the legislators, and their staffs. Take this opportunity to donate something priceless -- your time.

Please detach, fill in and mail the postcard located above. You will be sent a confirmation card explaining details. Your participation means the continuation of a tradition established by the medical community for the people of Maryland.

YOUR TIME CAN MAKE A DIFFERENCE.

Could a disgruntled employee cost you your practice and your freedom?

Qui tam, the federal whistleblower statute that became famous in Defense Department cases several years ago, is now actively being used to combat health care fraud. A disgruntled employee could be turning your memos and documents over to federal authorities. You may not realize that anything you are doing is improper.

Qui tam (*who as well;* i.e., the plaintiff sues as well for the state as for himself) is a tool used by prosecutors in fraud detection. There is usually an incredible paper trail when a *qui tam* case is filed. The reason is that the source of the documents is most likely one of your staff people.

Qui tam states that anyone who reports health care or defense fraud is entitled to up to 15% of the monies recovered. This can add up to substantial dollars for a disgruntled employee or ex-employee.

Just a few years ago, National Health Labs was reported by an employee who had tenure of less than 90 days. Their fine for billing for services not ordered was $140 million. That was a $21 million payment to the reporting employee.

In 1995, a laboratory in Rockville was fined a substantial sum for illegal billing practices that an employee uncovered. The whistleblower continued as an employee of the laboratory while assisting the government.

The current ongoing investigation of more than 600 hospitals (including several in Maryland) is a *qui tam* case out of California.

The reason *qui tam* is being used more frequently is that when fraud is reported, all actions (audits, investigations, search warrants) are done in the name of the federal government, thereby protecting the identity of the accuser. The accuser is only revealed once the case is heard in court or a settlement is made. Until that time, the accuser could actually work for you and provide your memos, guidelines, and other distributed documentation to the government without being identified.

Ronald H. Clark, senior trial counsel for the U.S. Department of Justice who prosecuted National Health Labs, stated at a District of Columbia Medical Group Management Association seminar in 1994, that he once averaged one *qui tam* case every other month until the National Health Labs case. He said that at the time of the seminar, he could not see his desk for all the *qui tam* cases he was prosecuting.

A representative from the Office of the Inspector General testified before a congressional subcommittee in August 1995 that she then had more than 75 active *qui tam* cases in her office for health care alone. Several attorneys in the Baltimore area run daily advertisements in the *Sun* asking people with knowledge of health care fraud to call their offices.

The specter of *qui tam* opens many other discussions in relation to how your staff is treated. Disgruntled employees are the chief impetus for *qui tam* cases. You may want to reevaluate your commitment to staffers who are malcontents and your treatment of all your employees. Each employee is a potential weapon! Each employee is an asset. Help them stay educated on proper billing practices and they can help you.

Some practices that could cause you trouble

- waiver of copayments or deductibles (without waiver)
- discounts for staff or others (you must file a 1099 if the discount is more than $600 per annum)
- upcoding
- poor documentation of medical records
- referral fees or discounts to patients
- annual contract rate for care
- "insurance only" written or stamped on patient files
- billing for services not provided
- not documenting drug samples given to patients in patient charts
- billing nonallowed amounts

C. Sherwood Harris, CCAM
Mr. Harris is the director of operations for *Keep InforMD*, a health care news and legislative services company. ■

Question

Based on my recommendation, one of my patients who became seriously ill presented to the emergency room and was admitted. Although hospital medical staff personnel began the admission work-up, I arrived shortly thereafter and provided the admission history and physical. Later on the same date, the patient became critically ill and I provided intensive care in the medical unit. Since I already provided the admission service, can I also bill for critical care on the same date? If so, how should this be documented in the medical record?

Answer

Such situations occur frequently. The key can be found by answering one question: was the critical care service distinct from the admission and physical? In the case above the answer to the question is, yes, both services are billable.

Critical care services are often misused, misunderstood, and overlooked. Billing for critical care services has been a long-standing problem for physicians who provide this patient service. Even the AMA has been fine-tuning the definition of CPT codes 99291 and 99292 since they were introduced in 1992. Thus, appropriate medical record documentation must occur. Following are some of the pitfalls of coding critical care services.

Is it really critical care?

As defined by CPT, critical care requires the constant attention of the physician. The physician must devote his or her full attention to the patient and cannot render evaluation and management services to any other patient during the same time period. Patients who might require critical care services include those who have cardiac arrest, septic shock, excessive blood loss, respiratory failure, serious post-operative complications. It is very important that the diagnosis(es) in the medical record and on the submitted claim reflect the full extent of the patient's condition. Critical care need not be rendered only in an intensive or coronary care unit; conversely, the patient's presence in a critical care area does not equate to the need for critical care services by a physician.

Carrier processing systems are becoming more sophisticated in their ability to sort and compile data and flag physicians who report extensive hours of critical care and other evaluation and management services. The medical record should reflect the time spent and the services provided to each patient.

Function and components of the critical care codes

CPT codes 99291 and 99292 are used to report the total duration of physician time involved in the constant attention to a critically ill/injured patient. Nor is the physician required to be constantly at the patient's bedside per se, as long as he or she is engaged in physician work directly related to the patient's care. Time does not have to be continuous on a given day. Code 99291 is used to report the first hour—not the initial hour. Code 99292 is used for each additional 30 minutes beyond the first hour on a given day. Critical care of less than 30 minutes on a specific date would be reported using the appropriate subsequent hospital evaluation and management service code (99231-99233).

The following services are considered to be included in critical care when they are performed during the period of critical care.

- chest x-ray: 71010,71020
- cardiac output measurements: 93561,93562
- blood gases and information data stored in computer (e.g., ECGs, blood pressure, hematologic data): 99090
- gastric intubation: 91105
- temporary transcutaneous pacing: 92953
- vascular access procedures: 36600,36410,36415, 36600
- ventilator management: 94656,94657,94660,94662

Any service not listed above should be reported separately. Some insurers (e.g., Blue Shield of Maryland) may add to what they consider to be included in critical care (e.g., endotracheal intubation, 31500; bladder catheterization, 51010 or 51045).

General guidelines

When a physician provides critical care and another evaluation and management service on the same day, the other evaluation and management service must be separate and distinct from the critical care. The medical record documentation should show that each service was provided at separate intervals, not concurrently. Carriers usually will require the notation on the claim submitted that the two services were provided at

different times on the same date or will require a copy of the medical record with the submitted claim. Use of modifier "25" with the other evaluation and management service indicates that the service was "separately identifiable" from the critical care; modifier "25" is used only to bill insurers that accept this modifier. It is important to note that Blue Shield of Maryland will *not* pay for a medical visit and a critical care visit on the same day.

Only one physician may be reimbursed for a given hour of critical care, even if more than one physician is providing care to a critically ill patient.

When a patient presents to the emergency department and requires critical care services, only critical care should be billed. Do not use the emergency department service CPT codes (99281-99285).

Many insurers limit the number of hours of critical care they will automatically pay before they require medical record documentation. Blue Shield of Maryland will request the medical record when billed for more than 104 minutes of critical care for a patient. Maryland Medical Assistance will not allow more than three hours of critical care for a patient in a five-day period. Such claims will be rejected and must be appealed (be sure that you really should be billing critical care).

Question

Working for a cardiologist, I frequently need to code cardiac angina. In the ICD-9 CM book, there are two codes to choose from: 413.9 and 411.1. How should I code correctly for this service?

Answer

Code 413.9 is for angina pectoris, a more stable form of angina that has less severe symptoms, usually exists for a short period of time, and is relieved in a predictable manner. It is often symptomatic due to stress or physical exercise and is usually relieved by rest.

Code 411.1 is for pre-infarct angina, an acute/subacute form of ischemic heart disease. The symptoms are of greater intensity and require increased care to avert an impending myocardial infarction. A physician will often note that, along with the increased pain felt by the patient, the attack was longer than usual and not relieved by taking sublingual nitrogylcerin.

The most common problem for the coder is the lack of specification in the medical record documentation—either in the impression portion of the record and/or in the physical examination section of the documented encounter. If the medical record only says angina and additional information is not available, the coder must use the lesser of the two codes: 413.9.

Another problem for the coder is knowing the underlying cause of the angina and how to ICD-9 CM code and sequence the multiple codes (when warranted). Angina is usually a symptom of another cardiac condition such as arteriosclerosis or aortic stenosis. From the standpoint of physician billing, it is important to remember that *the primary reason for the encounter or procedure is the diagnosis that is to be reported.* If the angina attack is the reason why an electrocardiogram was ordered, then the correct angina ICD-9 CM code should be entered as the primary diagnosis and the code for the underlying condition as a secondary diagnosis. ■

Deborah Bell, CPC
Ms. Bell is a regional coding and reimbursement consultant certified in medical coding by the American Academy of Procedural Coders.

Are you or members of your staff in a coding quandary? Send your questions to Deborah Bell, CPC, in care of *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201, or fax to the attention of Mary Ann Ayd, 410-547-0915.

Alliance

Celebrating National Doctors' Day

Each year, Alliance members of Maryland recognize the doctors of the state and the work they do. According to the first resolution of Doctors' Day, enacted in Georgia in 1933, the object of the day is "to recognize the well-being and honor of the profession." The state of Georgia adopted this resolution on May 10, 1934, in Augusta, Georgia. When the Southern Medical Association Auxiliary met in St. Louis, Missouri, in November 1935, the organization accepted this program as an integral part of, and synonymous with, the SMA Auxiliary. Sixty years later, in 1995, SMAA met again in Missouri, this time in Kansas City, and honoring physicians continued to be a major part of their program.



Mary Skipton and Helen Boyer earned second place for best statewide presentation.

An annual Doctors' Day Luncheon and Awards ceremony was held at the SMA & A convention, recognizing the states that have best represented Southern with Doctors' Day activities or by remembering past achievements. In November 1995, Maryland received high honors for its part in acknowledging its physicians. The highest possible award for best overall, outstanding exhibit went to Frederick County led by SMAA Medical Heritage councilor Georgia (Mrs. Peter) Lizas:

Dr. and Mrs. Milford O. Rouse Award
Given to Frederick County for the best overall exhibit and conferred at the SMA Doctors' Day Luncheon



Gwen Pappas, Georgia Lizas, and JoAnn Davis with the Dr. and Mrs. Milford O. Rouse award for best overall exhibit.

The plaque and certificate were presented to Georgia by JoAnn Davis, SMAA president 1994-1995, and Gwen (Mrs. Dino) Pappas, SMAA vice president for medical heritage. We are very proud of Georgia and Frederick County.

Medical heritage remembrances continued to be Maryland's strong point as the very informative exhibit on Davidge Hall was awarded second place for best statewide presentation. The exhibit was prepared by Mary (Mrs. R. Kennedy) Skipton and Virginia (Mrs. Herbert) Levickas, assisted by Helen (Mrs. M. McKendree) Boyer.

In October 1995, at the Alliance fall House of Delegates meeting in Maryland, special awards were given to Maryland counties with the best exhibit and project for Doctors' Day. Bobbie (Mrs. Edmund) Niklewski, Maryland SMAA councilor for Doctors' Day, presented the following awards:

- First place: Vickie (Mrs. Vincent) Casibang, M.D., Prince George's County
- Second place: Barbara (Mrs. Nicholas) Foris, Frederick County
- Third place: Mano (Mrs. Samuel) Nava, Allegany County

We are indebted to these Alliance members for their hard work and dedication.



Bobbie Niklewski presenting the award to Mano Nava of Allegany County.

Throughout the state, the counties recognize this special day in many ways. Pat (Mrs. Steven) Brand of Frederick County, state chairperson for Doctors' Day, has prepared this listing of activities planned for March and particularly Doctors' Day (March 30, 1996):



Pat Brand, state Doctors' Day chairperson.

Allegany County

A dinner dance will be held featuring line dancing. Audio and video cassettes on medical topics will be donated to the public library. Tray cards will be distributed at the community hospital and articles about this special day featuring Rosario Gonzaga, M.D., president of Allegany County Medical Society, will be featured in the local newspaper thanks to the efforts of Lorraine (Mrs. Kheder) Ashker and Mano Nava of the Alliance.



Mano Nava, Allegany County president.

Anne Arundel County

Plans are set for an international dinner on March 29.

Baltimore City

Plans are made to list physicians, spouses, and friends in the *Maryland Medical Journal*, honoring them on Doctors' Day.

Baltimore County

A pot-luck dinner is planned for the physicians.

Frederick County

A special dinner with a comedian is planned in March. On March 30, all patient trays in the hospital will have tray cards about Doctors' Day.

Harford County

An international dinner and tray cards in the hospital are planned.

Prince George's County

A Doctors' Day luncheon will be held at two hospitals. The Philippine Medical Society will host a dinner with a guest speaker.

Washington County

There will be a special dinner and play at the Washington Playhouse.

Wicomico County

An international dinner is planned for March 16.

The Alliance is well aware of the importance and compassion of their Maryland doctors and is proud to recognize them and their achievements.

Mildred (Mrs. Charles E.) Taylor
SMAA past president
Med Chi Alliance past president ■

MARYLAND

The Alliance always welcomes new members.

Alliance members support the physicians and are recognized for their contributions to health, education, and the promotion of quality health care in Maryland.

For information on becoming a member,
call JoAnn Troisi at Med Chi's Alliance office.
539-0872 (Baltimore area) • 1-800-492-1056 (toll free in MD)

In Memoriam

Thomas B. Connor, M.D., the founder and first director of the University of Maryland Medical School's division of endocrinology, died November 30, 1995, of prostate cancer, at his home in Baltimore. Dr. Connor was a graduate of the University of Maryland School of Medicine and became interested in endocrinology while working on a fellowship at The Johns Hopkins Hospital. He established the division of endocrinology when he returned to the University of Maryland Medical Center in 1956 as an assistant professor of medicine. Published more than 50 times, Dr. Connor was director of the clinical research center at the University of Maryland Hospital from 1961 to 1972, and a consultant in medicine at Mercy Medical Center and the Baltimore Veterans Hospital. Upon his retirement in 1987, the University of Maryland School of Medicine initiated a fund-raising program to establish the Dr. Thomas B. Connor Professorship Fund. Dr. Connor was 73.

Charles N. Davidson, M.D., a former president of the Maryland Radiological Society and the board of Blue Shield of Maryland, died in Milwaukee November 8, 1995, of complications of amyotrophic lateral sclerosis. Dr. Davidson started his medical career as a resident in radiology at University of Maryland Hospital in 1939 and remained on staff until 1953, serving as chief of radiology. In addition, Dr. Davidson was a professor of radiology at the University of Maryland and maintained a private practice in Baltimore. He retired from the University of Maryland School of Medicine as an adjunct professor of clinical radiology in 1972 and from private practice in 1979. He moved from Baltimore in 1991 and settled in Wisconsin in 1994.

Mary Louise Small, M.D., a pioneer in the performance of corneal transplants, died January 3, 1996, at her home in Orono, Maine, of Alzheimer disease. Dr. Small received her medical degree from The Johns Hopkins University School of Medicine in 1925 and performed the first corneal transplant in Maryland in the 1940s. She was on the staff of the old Baltimore Eye, Ear and Throat Charity Hospital at Eutaw Street and served as its president during the 1940s. She was a fellow of the American College of Surgeons and had published several research papers, including studies of macular degeneration. Upon her retirement in 1972, Dr. Small was named a fellow in eye pathology at the Wilmer Ophthalmological Institute at Johns Hopkins. She moved to Maine in 1986. Dr. Small was 100.

George S. Tan, M.D., a graduate of the College of the Phillippines, died of Alzheimer disease December 10, 1995, at his home in Annapolis. Dr. Tan served his residency at South Baltimore General Hospital, now Harbor Hospital Center, and later became chief thoracic surgeon. He was on staff there until his retirement in 1986. In addition, he was on the staff of North Arundel Hospital. Dr. Tan was 70.

No additional information was available at press time for the following members:

John W. Barnaby, M.D.
November 15, 1995 ..... Baltimore City

Earl L. Chambers, M.D.
November 20, 1995 ..... Baltimore City

Jonas Cohen, M.D.
October 1, 1995 ..... Baltimore City

W. Deaver Kehne, M.D.
November 21, 1995 ..... Frederick County

Robert C. Kimberly, M.D.
December 1995 ..... Baltimore City

Howard F. Kinnamon, M.D.
January 5, 1996 ..... Talbot County

Jose A. Palancar, M.D.
Anne Arundel County

C·M·E·R·C update

Don't miss the CMERC meeting at the Med Chi Annual Meeting on April 25, 1996.

Changes in CMERC procedures

If it has been some time since you were involved with the Continuing Medical Education Review Committee (CMERC), you may be interested to know about a procedural change that has improved its efficiency. Reaccreditation applications, new applications for accreditation, and interim reports previously were reviewed by subcommittees consisting of about four CMERC members each. Now, Med Chi CME staff members review all applications and interim reports for completeness before one or two committee members review the submissions and report their findings at the next CMERC meeting. Following a discussion, the committee decides on the next step(s) or makes an accreditation decision.

Other changes

This year the CMERC has expanded greatly to include 21 members. Although we were delighted to welcome 10 new members, we regretted the loss of two active, experienced members who retired from committee service. Because of our concern about the lack of a sufficient number of experienced site surveyors, the CMERC requested and the Med Chi Board of Trustees recently approved the establishment of a "surveyor pool," which will consist of both experienced surveyors who currently serve on the CMERC and experienced surveyors who no longer serve as committee members, but have expressed a willingness to serve as site surveyors. The arrangement should ensure an adequate number of surveyors to meet the needs of Med Chi's 58 accredited sponsors.

Preparing an application for accreditation or reaccreditation

We hope the following suggestions will help those who will be preparing either an initial application for accreditation or an application for reaccreditation in the coming months.

- Before starting the application form, know the Essentials and understand what is required to meet each Essential.
- Read the entire application before beginning to work on any part of it.
- Prepare a draft of your application.
- Follow directions regarding length, page numbering, placement of appendices, etc.
- Answer all questions in a straightforward manner using direct language. Do not attempt to obscure facts by using vague language, and do not exaggerate.
- The content of your application should illuminate your CME planning process and emphasize linkage in Essentials 2 through 5.
- Choose a CME example that shows your program at its best.
- Review your completed application carefully. Be sure that all requested materials are included and that your application is consistent and logical.
- Do not submit extraneous material.

New application

All accredited sponsors will soon be receiving a CMERC handbook that includes a revised (re)accreditation application. The new application will include pages for the accredited sponsor to complete and related pages for the site survey team to complete. The new format should offer a major advantage to those preparing applications, as they will have significant insight into what the reviewers/site surveyors will be looking for.

Consultation services

In addition to reviewing applications and reports and making accreditation decisions after CME program surveys, the CMERC provides consultation services to Med Chi-accredited CME sponsors, as well as to organizations preparing their first applications.

An accredited sponsor's CME committee may request an educational consultation at any time if the members feel that they need assistance in complying with the *Essentials for Accreditation.* A telephone call to Med Chi's CME staff is all that is needed to request a consultation and arrange a mutually convenient time and date.

If at any time the CMERC finds evidence of substantial noncompliance with the *Essentials*, which is jeopardizing a sponsor's accreditation status, the CMERC may request an educational consultation to assist the sponsor to bring its program into compliance. This occurs most often when a sponsor's interim report is reviewed.

ERRATUM

The second paragraph of the January *CMERC Update* should read: "On analyzing the *site survey reports* and interim reports that were reviewed during the period July 1994 to June 1995 . . . ."

DEUSDEDIT L. JOLBITADO, M.D.
Dr. Jolbitado is a member of Med Chi's Continuing Medical Education Review Committee. ■

THE PURPOSE OF THIS COLUMN is to inform CME chairpersons, CME committee members, and all interested physicians about the activities of Med Chi's Continuing Medical Education Review Committee (CMERC) and about rules and procedures that affect the implementation of CME programs in Maryland. When appropriate, news from the Accreditation Council for Continuing Medical Education (ACCME) will be included.

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Danny Thomas, Founder

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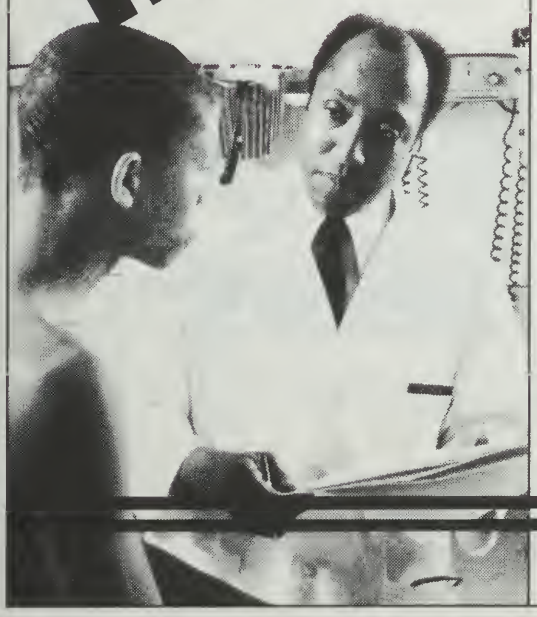
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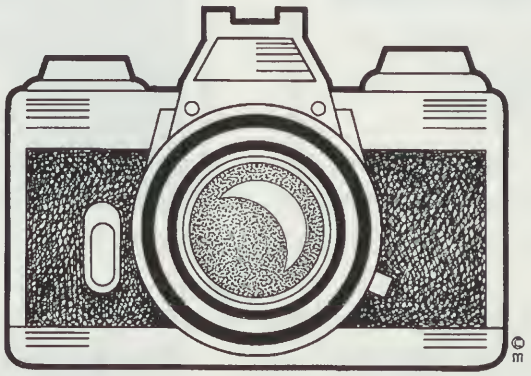
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AIR FORCE

Enter the Sixteenth Annual Med Chi PHOTO CONTEST!

Contest is open to all Med Chi and Alliance members.

Two categories: black & white OR color with first and second prizes awarded in each category.



Deadline for entries is Friday, March 15, 1996.

All entries will be displayed at the 1996 annual meeting at the Turf Valley Inn and Convention Center, Ellicott City.

Photo Contest Rules:

Eligibility: All members of Med Chi and members of the Alliance may enter. Professional photographers may not enter.

1. Photographs may be submitted in two categories: black and white OR color.
2. Limit: three entries per person.
3. Prints only; prints smaller than 8" x 10" or larger than 11" x 14" will not be accepted. If your favorite shot is a slide, you must have a print made within this size range to enter the contest.
4. Entries must be matted or dry mounted. No framed photographs will be accepted.
5. Entries must have name, address, and telephone number attached to the back of each photograph.
6. Entries may be mailed or brought to Med Chi, 1211 Cathedral Street, Baltimore, MD 21201 by 5:00 pm on March 15.
7. Photographs entered in the contest will be on display at the 1996 annual meeting.
8. Prizes will be awarded to the first and second place winners in each category.
9. Winners will be announced at the annual meeting of the Medical and Chirurgical Faculty, April 25-27, 1996.
10. Photographs will not be mailed back. They may be claimed at the registration desk at the close of the annual meeting at noon on April 27 or at Med Chi thereafter.
11. Med Chi does not guarantee against loss or damage of any kind to the photographs submitted to the contest.

Call for Papers

The Editorial Board of the Maryland Medical Journal currently seeks original articles addressing topics related to

- Evidence-based medicine: science or politics?
- Assistive technologies for people with disabilities
- Pre-surgery medical considerations (e.g., in elderly, pediatric, or psychiatric patients; questions before emergency surgery).

Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.



All submissions should conform to Maryland Medical Journal requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor, 1211 Cathedral Street, Baltimore, MD 21201; 410-539-0872 or 1-800-492-1056; FAX 410-547-0915.

The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects), membership and legislative news, continuing medical education notices, and programs and policies of the faculty.*

Information for AUTHORS

- ***Letter of transmittal***—The letter of transmittal, which all authors must sign, should include the full names, degrees, titles, and affiliations of all authors, and the name, address, and phone number of the author to whom reprint requests and correspondence should be sent.

  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

  In addition, the letter must include a paragraph that transfers copyright ownership to the *MMJ* in the event that the work is published.

- ***Manuscript preparation***—Manuscripts should be submitted to Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585. Manuscripts must be original material not previously published and not under consideration by another publication. An abstract of 100 to 300 words is required.

  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

- ***Illustrations***—Illustrations include material that cannot be set in type. Photographic material must be submitted as high-contrast, glossy prints. Drawings and graphs must be done professionally in india ink on high-grade white drawing paper or be computer generated. Identification—including figure number, the title of manuscript, the name of corresponding author, and arrow indicating top—should be typed on a gummed label and affixed to the back of each illustration. Legends for illustrations should be typed on a separate page with numbers corresponding to those on the photographs or drawings. Recognizable photographs of patients are to be masked and should carry with them written permission for publication. Cost of printing color photographs must be borne by the author.

Checklist

- ☐ Original manuscript and one copy.
- ☐ IBM-compatable disk in WordPerfect, Multimate, Wordstar, or ASCII.
- ☐ Everything double-spaced.
- ☐ Letter of transmittal, signed by all authors, that includes release of copyright, statement of authorship responsibility, title and affiliation of all authors, and identification and phone number of corresponding author.
- ☐ Abstract of 100 to 300 words.
- ☐ Permission-to-borrow letters for any previously published illustrations or tables

- ***Permissions***—Material taken from other sources must be accompanied by written permission from both author(s) and publisher allowing the *MMJ* to reproduce the information/figure.

- ***Editorial responsibility***—All manuscripts are acknowledged upon receipt. They are subject to peer review by an editorial board and, at times, by guest reviewers in appropriate fields of medicine, to determine the originality, validity, and importance of the content and conclusions. Authors are usually notified of the status of their papers (acceptance, revision, or rejection) within 4 to 8 weeks of receipt; however, longer delays are sometimes unavoidable. Reviewers' comments will be returned with rejected manuscripts at the discretion of the Editor. All guest reviewers will remain anonymous.

  Accepted manuscripts become the permanent property of the *MMJ* and are subject to copy editing. (The *Chicago Manual of Style* and the unabridged *Random House Dictionary of the English Language* are used as style guides.) The corresponding author is sent a reprint order form and galley proofs. S(he) then has 48 hours in which to make minor changes and clear all corrections and changes with co-authors; if proofs are not returned by the specified date, they will be considered approved as typeset. ■

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

37th Annual postgraduate institute for pathologists in clinical cytopathology, 95.5 Cat 1 AMA credits plus up to 22 hrs. of video instruction. **Registration must be received by Mar. 26, 1996.**	
Course A (home study)	**Feb.–April**
Course B (Johns Hopkins Medical Institutions, Baltimore, MD)	**April 15–26**
Spectrum of developmental disabilities XVIII, 20 Cat 1 AMA credits.	**Mar. 18–20**
Sixth annual clinical care of the patient with HIV infection, 12.5 Cat 1 AMA/AAFP credits. Fee: $325/physicians; $175/residents, fellows, allied health professionals.	**Mar. 21–22**
15th Mid-Atlantic regional meeting of the Society of General Internal Medicine, Cat 1 AMA credits available. Fee: $100; $30/residents, fellows.	**Mar. 22**
PET and SPECT imaging in cancer diagnosis and treatment, 18.5 Cat 1 AMA credits. Fee: $495/physicians; $395/residents, fellows, allied health professionals.	**Mar. 25–27**
Nuclear oncology, 19 Cat 1 AMA credits.	**Mar. 25–27**
Diagnosis and treatment of neoplastic disorders, 14 Cat 1 AMA credits. Fee: $325/physicians; $150/residents, fellows, allied health professionals.	**Mar. 28–29**
Lipid disorders training program— advanced update, at the Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150.	**Mar. 29 & Sept. 6**
Biological response to orthopaedic implants, at the Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 13 Cat 1 AMA credits. Fee: $275/physicians; $140/residents, fellows.	**April 12–13**
24th Annual pediatric trends, 42 Cat 1 AMA credits. Fee: $695/physicians; $495/allied health professionals.	**April 15–20**
Tenth annual mood disorders symposium, 5 Cat 1 AMA credits. Fee: $50/DRADA members; $60/all others.	**April 23**
Lipid disorders training program—basic course, credits: TBA. Fee: $250.	**April 23–25 & Sept. 17–19**
Pediatric allergy and immunology for the practitioner, 14.5 Cat 1 AMA credits. Fee: $275/physicians; $200/residents, other allied health professionals.	**April 25-26**
Practical management of Alzheimer's disease and other dementias, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 7 Cat 1 AMA credits. Fee: $145/physicians; $110/psychologists in practice; $90/residents, fellows, allied health professionals.	**April 27**
First international conference on the exstrophy-epispadias complex	**May 1–2**
Advances in cardiac diagnosis and treatment 1996, Mt. Washington Conference Center, Baltimore, MD.	**May 2–3**
13th Annual Wilmer nursing conference	**May 3**
Critical issues in surgical pathology	**May 2–3**
41st Annual topics in clinical medicine, 39.5 Cat 1 AMA credits. Fee: $750/physicians; $600/residents, fellows, other allied health professionals.	**May 13–17**

The Johns Hopkins Medical Institutions (continued)

Basic concepts in dysphagia diagnosis and management, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $185/physicians; $120/allied health professionals. **May 29**

Sixth multidisciplinary symposium on dysphagia, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 14 Cat 1 AMA credits. Fee: $425/physicians; $245/residents, allied health professionals. **May 30–31**

Ninth summer institute in environmental health sciences, The Johns Hopkins University School of Hygiene and Public Health. Info: Denise Barton, 410-955-3537. **June 3–14**

Clinical trials, 15 Cat 1 AMA credits. **June 4–5**

Interface of biomechanics and cell biology in orthopedics **June 6–8**

Advanced pediatric life support, 20 Cat 1 AMA credits. **June 10–12**

Age-related macular degeneration: update 1996 **June 14–15**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of case discussions by a different presenter on the first Thursday of each month. Info: Carol Kelly, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Self-Directed CME Activities

U.S. medical costs and values: primary prevention versus end stage treatment, monograph and test. Expires Aug. 1996, 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interaction: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

University of Maryland School of Medicine (continued)

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous meetings

Creativity: its relationship to psychopathology and treatment conference, Sheppard Pratt Conference Center, Baltimore, MD. 5.2 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. **Mar. 23**

Annual Maryland Thoracic Society Research Dinner and scientific session, "Obstructive diseases of the lung," Belvedere and Stouffer Renaissance Harborplace hotels, Baltimore, MD. Info: Anne Eder, 410-560-2120, ext. 206. **Mar. 23–24**

Clinical psychopharmacology: review and update—1996, Sheppard Pratt Conference Center, Baltimore, MD. 13.58 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. **April 12–13**

Virginia Society of Otolaryngology-Head and Neck Surgery annual meeting, Homestead Resort, Hot Springs, VA. Info: Donna Scott, 804-649-2407. **April 26–27**

Sixth annual current concepts in orthopaedics, sponsored by the Southern Medical Association, Omni Harbor Hotel, Baltimore, MD. Cat 1 AMA credits available. Fee: $295/SOA members; $359/SMA members; $495/all other physicians; $50/residents/fellows; $100/nonphysicians. Info: Michelle Williamson 205-945-1840. **May 16–18**

48th Annual meeting, scientific session & exposition, sponsored by the Maryland Academy of Family Physicians, Sheraton Fontainebleau Hotel, Ocean City, MD. 26.5 Cat 1 AMA/AAFP credits. Fee: $280/members; $325/nonmembers; $110/allied health professionals. Info: Leonard H. Raucher, M.D., 410-747-1980. **May 16–19**

Continuously throughout the year

American College of Cardiology, The Heart House Learning Center, Bethesda, MD. Info: 1-800-257-4737.

Echocardiography for sonographers and cardiology trainees: 2-D/Doppler, color flow imaging, TEE and stress echo— practical review. **Mar. 7–9**

Echocardiography in coronary artery disease: live demonstration and interpretations of exercise and pharmacologic stress echo. **April 10–12**

Advanced pediatric cardiac ultrasound. **April 15–17**

Cardiac pacing—1996: new indications for pacing, rate adaptive pacing updates, update on cardioversion–defibrillation. **April 18–20**

Transesophageal echocardiography: live demonstration of technique, image orientation, interpretations, and current and evolving applications of biplane and multiplane TEE. **April 24–26**

Echocardiography as we approach the year 2000—teleconference. **April 27**

Aggressive management of cardiovascular emergencies featuring the role of urgent echocardiography. **May 1–3**

Nuclear cardiology for the technologist. **May 6–8**

Miscellaneous meetings (continued)

Recent advances in clinical nuclear cardiology featuring case review with the experts.	**May 9–11**
Pediatric cardiac catheterization update—1996.	**May 13–15**
Echocardiography: a clinical review—emphasis on TEE, stress echo and Doppler hemodynamics.	**May 23–25**
Peripheral artery disease: contemporary strategies for diagnosis and therapy.	**June 3–5**
Advanced catheter ablation of cardiac arrhythmias.	**June 6–8**
Interpretative echocardiography: an advanced seminar in interpretation of two-dimensional, Doppler, stress, and transesophageal echocardiography.	**June 10–12**
Cardiovascular magnetic resonance imaging: an important technology of today, but a major approach of tomorrow.	**June 13–15**
Stent/Rotablator®/DVI: the new strategies for approaching the patient.	**June 24–26**

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 a.m. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, Zamoiski Auditorium, Thursdays, 9:00 - 10:00 a.m. Info: 410-578-5528.

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The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

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MMJ announcements for physician placements in the classified advertisements are charged at the regular classified advertising rate

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EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM
201 West Preston Street, Baltimore, Maryland 21201 (410) 225-6700

Questions & Answers on TB, Rabies, and Hepatitis A Vaccine Information Statement March, 1996

The following are frequently asked questions related to tuberculosis and rabies. Also included is the recent hepatitis A vaccine information statement.

Tuberculosis

Q. When may a patient go back to work after starting treatment for open cavitary pulmonary tuberculosis?

A. An assessment of the infectiousness of the patient should be done. Patients are not infectious and may return to work if they meet all of the following criteria:
- adequate treatment for 2 to 3 weeks;
- favorable clinical response to therapy; and
- three consecutive negative sputum smear results from sputum collected on different days.

Q. A Mantoux tuberculin skin test shows a large red (erythematous) reaction. Is it a positive PPD test?

A. The induration (i.e. the palpable swelling) should be measured to obtain the millimeters of the skin test "reaction." The diameter of the erythema (redness) should not be measured. The diameter of the induration should be measured across the forearm, perpendicular to the long axis of the arm. Whether the millimeters of induration constitutes a "positive PPD test" depends on the risk category of the patient (e.g. if the person has had recent contact with an infectious tuberculosis case, 5 mm induration is considered positive; if the person has no medical risk factors, is not a contact, and not in a high risk occupation, 15 mm induration is positive). (MMWR 1994; 43 No. RR-13: 59-65.)

Rabies Prophylaxis

The following situations often are encountered and the issue of rabies prophylaxis is raised. All the local health departments have rabies consultation available 24 hours each day to assist you in your decision making.

Q. You were bitten while feeding a squirrel. Do you need rabies post-exposure prophylaxis?

A. No. Feeding an animal is considered to be a provocation of the animal and many animals accidentally bite while feeding. The circumstances of a bite should also be

taken into consideration in the case of a bite by a small rodent, cat, or dog. If a wild carnivore, such as a racoon, skunk, or fox is wandering down the street at noon (an unusual behavior) and bites a child who is attempting to feed it, the bite warrants prophylaxis pending laboratory testing of the animal. Whenever possible, we test the brain of the biting wild animal to determine conclusively whether the animal was rabid or not, and we do not rely upon the circumstance.

Q. A patient has been bitten by a trapped mouse while the patient was disposing of a "sticky bait". Does the patient need post-exposure prophylaxis?

A. No post-exposure treatment is indicated. Mice are very rarely rabid and their bites have not resulted in human rabies. Also, the bite described was clearly provoked.

Q. Can birds, lizards, or mosquitoes that have fed on a rabid raccoon carry rabies?

A. No. The above species do not carry or transmit rabies. Only mammals (including bats) have rabies and are capable of transmitting it.

Q. A neighbor's dog bit your patient. Does the patient need rabies post-exposure prophylaxis?

A. No. Report the incident to the local authorities who will quarantine the dog for 10 days for observation. Your local rabies control program can assist you in locating the biting dog.

Q. A bat was found in the bedroom where the baby had been sleeping. No visible bite marks were found on the child but the bat tested positive for rabies, escaped, or was not available for testing.

A. Rabies prophylaxis of the baby **is** indicated because the possibility of exposure cannot be ruled out. We recognize that some patients may be treated unnecessarily, but evidence suggests that the risk of missing an exposure in these circumstances is not acceptable. Bats like other wild animals are considered rabid unless laboratory tested.

Q. A stray (presumable unvaccinated) cat bit a person sitting on a porch. The cat escaped and was not immediately available for laboratory testing. Should rabies prophylaxis be given?

A. About 20 cases of cat rabies are reported in Maryland each year. Persons bitten by a stray cat should receive rabies prophylaxis if the cat is not available for testing. Post-exposure rabies prophylaxis may be discontinued if a stray cat (or dog) is captured and tests negative for rabies, or if the animal is known to survive for 10 days after the bite. Therefore, efforts to locate a biting animal should not be abandoned.

Q. A groundhog bit a patients, escaped, and was not captured. Do you need to administer prophylaxis?

A. Yes, unless circumstances clearly exclude the likelihood of rabies. The groundhog (woodchuck) is a large wild rodent that is a notable exception to the truism that rodents rarely are rabid. About 80 groundhogs have tested positive for rabies in the past fourteen years as spillover from the raccoon-maintained epizootic in Maryland.

Hepatitis A

Hepatitis A vaccine was licensed in the spring of 1995. The next two pages include the Centers for Disease Control and Prevention's (CDC) Vaccine Information Statement on Hepatitis A Vaccine.

HEPATITIS A VACCINE

What you need to know before you or your child gets the vaccine



ABOUT THE DISEASE

Hepatitis A is a serious liver disease caused by the hepatitis A virus (HAV). HAV is found in the stool of persons with hepatitis A. The spread of HAV is usually by close personal contact and sometimes by eating food or drinking water containing HAV.

Hepatitis A can cause a wide variety of symptoms ranging from mild "flu-like" illness to more serious problems, such as yellowing of the eyes (jaundice), severe stomach pains, and diarrhea, that may require hospital admission.

A person who has hepatitis A can easily pass the disease to others within the same household.

In some cases, hepatitis A causes death.

ABOUT HEPATITIS A VACCINE

Benefits of the vaccine

Vaccination is the best way to protect against hepatitis A. People who get hepatitis A vaccine have protection for years against infection with HAV. The vaccine is made from a killed virus and is given as a shot in the muscle of the upper arm (deltoid). Before hepatitis A vaccine was available, only short term protection could be achieved by giving immune globulin (also called "gamma globulin" or IG) **(see box on back of form)**.

Hepatitis A vaccine schedule

The dose and vaccination schedule vary according to age:

- For adults >18 years of age: two doses; 6-12 months apart.
- For children and adolescents 2-18 years of age: three doses; second dose one month from the first; third dose, 5-11 months from the second.
- Other vaccines may be given at the same time as hepatitis A vaccine.

Who should get hepatitis A vaccine?

- Persons 2 years of age and older traveling or working in countries with high rates of hepatitis A, such as those located in Central or South America, the Caribbean, Mexico, Asia (except Japan), Africa, and southern or eastern Europe.
- Persons who live in communities with high rates of hepatitis A; some examples include American Indian, Alaska Native, and Pacific Islander communities and selected religious communities.
- Men who have sex with men.
- Persons who use street drugs.
- Persons with chronic liver disease.

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION
U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

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GENERAL INTERNAL MEDICINE FACULTY APPOINTMENTS

The General Internal Medicine Division at the University of Maryland at Baltimore seeks qualified individuals for non-tenure track faculty appointments at the instructor/assistant professor level. Major responsibilities will include patient care at off-sites for UniversityCare in addition to academic activities, including teaching housestaff. Individuals with fellowship training in GIM or current residents completing training in an accredited GIM program encouraged to apply. UMAB encourages women and minorities to apply and is an AA/EEO/ADA employer. Inquiries to Louis Domenici, M.D., 419 W. Redwood Street, Ste. 620, Baltimore, MD 21201.

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Cite SEER

Enzyme-inducing antiepileptic drugs (e.g., carbamazepine, phenytoin, ethosuximide, phenobarbitol, primidone) may alter the pharmacokinetics of oral contraceptives containing levonorgestrel. **Felbamate** (Felbatol), a chemically unique antiepileptic drug that has been shown to have antiseizure activity in patients with treatment-refractory partial onset seizures and children with Lennox-Gastaut syndrome, **may affect the pharmacokinetics of oral contraceptives containing gestodene and ethinyl estradiol.** Using a parallel-group, placebo-controlled design, researchers enrolled 31 young, healthy volunteers who had been taking an oral contraceptive containing ethinyl estradiol and gestodene for at least 3 months. Subjects were randomized to receive placebo or felbamate 2400 mg/d for 29 days spanning two oral contraceptive cycles. **Although none of the subjects who received felbamate showed hormonal evidence of ovulation, felbamate reduced the gestodene area under the plasma concentration-time curve by 42% compared to baseline and one subject reported the onset of intermenstrual bleeding.** Felbamate also was associated with a minor effect on the pharmacokinetics of ethinyl estradiol. The authors conclude that **felbamate may compromise the contraceptive efficacy of oral contraceptives** (*Clin Pharmacol Ther* 1995;58:523-531).

Even the Mayo Clinic gastroenterologists were surprised by the results of their extensive theoretical decision analysis **comparing a management strategy of empirical therapy or initial endoscopy for ambulatory adult patients presenting with a first episode of dyspepsia.** The analysis involved estimates of the direct medical care costs associated with each strategy and the life expectancies for patients with gastroesophageal reflux disease, peptic ulcer disease, gastric cancer, or functional dyspepsia. The **1-year medical costs were $2122.60 for the empirical therapy strategy and $2162.50 for the initial endoscopy strategy: a difference of approximately 1.8%.** Based on a review of the literature and their findings that the two strategies are almost equivalent in terms of medical charges, **the investigators concluded, "the endoscopy first strategy provides a more specific diagnosis, rules out malignancy, and reassures patients; hence, it seems to be the better strategy for patients"** (*Gastroenterology* 1996;110:72-83).

To assess **potential risk factors for HIV infection in health-care workers (HCWs) after percutaneous exposure to HIV-infected blood**, the U.S. Centers for Disease Control and Prevention and French and British public health authorities conducted a retrospective study using data reported to each country's national surveillance systems. Case HCWs had a documented occupational percutaneous exposure to HIV-infected blood, HIV seroconversion temporally associated with exposure, and no other concurrent exposure to HIV. Control HCWs had a documented occupational percutaneous exposure to HIV-infected blood and were HIV negative at the time of exposure and at least six months later. Results of univariate and logistic regression data analysis indicate factors associated with HIV transmission **include a deep injury, device visibly contaminated with the source patient's blood, procedures involving a needle placed directly in a vein or artery, and terminal illness in the source patient. Data analysis also suggests that postexposure use of zidovudine may be associated with a lower risk for HIV transmission** (*MMWR Morb Mortal Wkly Rep* 1995;44:929-933).

Cite SEER

Japanese investigators who collected samples of facial nerve endoneurial fluid from patients undergoing nerve-decompression surgery have demonstrated that **herpes simplex virus 1 is the cause of Bell palsy** (*Ann Intern Med* 1996;124:27-30). An accompanying editorial (pp. 63-65) states that the new data "logically argue for the use of acyclovir" (Zovirax) and cites results of research in press indicating that acyclovir plus prednisone may be more effective than prednisone alone in patients with Bell palsy.

In 1989, the state of New York began disseminating comparative information on the outcomes of coronary artery bypass surgery (CABG) that included hospital-specific case volume and crude and risk-adjusted mortality rates. In 1991, following a freedom of information lawsuit, surgeon-specific data also became public. An article from the New York State Department of Health concluded that this "quality improvement program" played a significant role in the 41% decline in risk-adjusted mortality for CABG surgery in New York between 1989 and 1992 (*JAMA* 1994;271:761-766). **Researchers from the University of South Carolina and the Cleveland Clinic Foundation**, however, recently reported the results of their retrospective analysis of 9442 isolated CABG operations at the Cleveland Clinic (a referral center in Ohio, 110 miles from the western border of New York State) performed between 1989 and 1993. Using the period 1980 to 1988 as a historical control, they **found that for the study period, the observed mortality rate among patients from New York (5.2%) was significantly greater than that for patients from Ohio, other states, and other countries. They conclude that the scorecard approach in New York may have resulted in increased referral of high-risk patients to an out-of-state treatment center** (*Circulation* 1996;93:27-33).

Although several studies have shown that non-insulin-dependent diabetes (NIDDM) increases the risk of ischemic stroke, data are limited on predictors of stroke in middle-aged patients with NIDDM. **A recently published, prospective, population-based study involving 1059 NIDDM patients and 1373 nondiabetic controls indicates that previous history of stroke, hypertension, hyperglycemia, and dyslipidemia are strong predictors of stroke in middle-aged patients with NIDDM** (*Stroke* 1996;27:63-68). High fasting plasma glucose was a risk factor for stroke even after adjustment for other variables. In addition, unlike other studies, there was a strong relationship between low HDL cholesterol and stroke in women as well as in men. Finally, the study showed a dose-response relationship between total cholesterol, HDL cholesterol, and triglycerides and the risk of stroke in NIDDM patients.

Investigators who obtained cultures from 200 stethoscopes from four hospitals and outpatient clinics in the Houston area report that 159 (80%) of the instruments were contaminated with organisms that could cause nosocomial infections. Most of the organisms isolated were gram-positive bacteria, primarily *Staphylococcus* species. **Methicillin resistance was found in 17% of *S. aureus* specimens, 46% of *S. epidermidis* specimens, and 84% of other *Staphylococcus* species.** Acknowledging that there is no direct evidence that contaminated stethoscopes result in patient infections, **the authors** nevertheless **recommend regular disinfection of stethoscopes or use of disposable covers** (*Arch Intern Med* 1996;156:82-84).

Results of the first randomized trial comparing excimer laser coronary angioplasty (ELCA) with balloon angioplasty in the treatment of obstructive coronary artery disease demonstrate no additional benefit of ELCA. The trial also confirmed data from ELCA registries indicating an increased use of balloon angioplasty; in the trial, ELCA was followed by balloon angioplasty in 98% of procedures (*Lancet* 1996;347:79-84).

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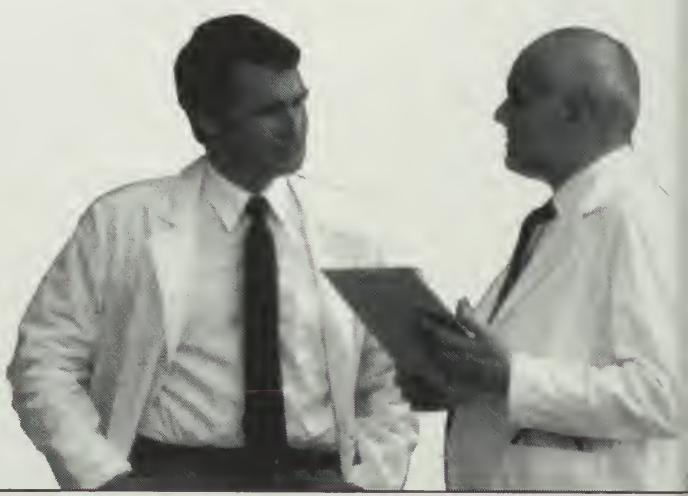
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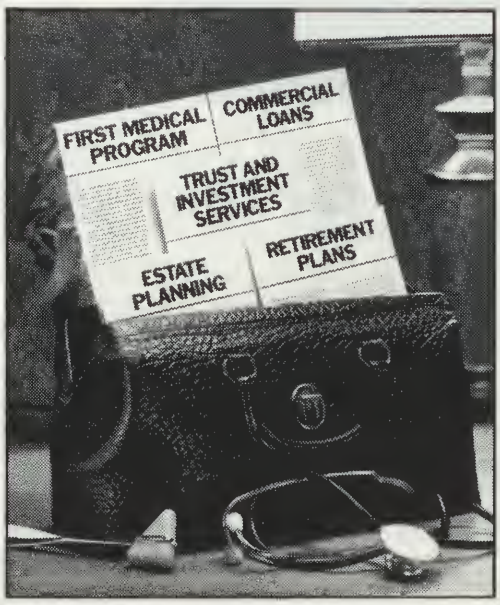
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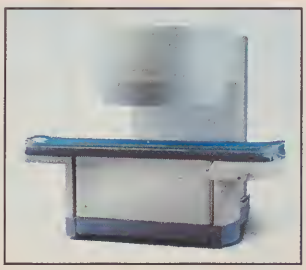
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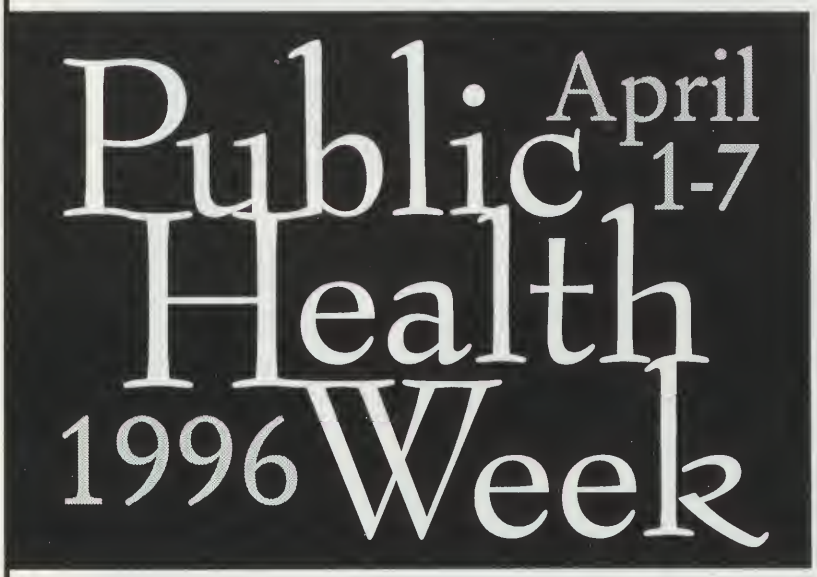
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President Clinton and Governor Glendening have proclaimed April 1- 7, 1996, as Public Health Week. In honor of Public Health Week, the physicians of Med Chi want to thank the many public health doctors and workers who continually strive to improve the health of our community and its citizens.

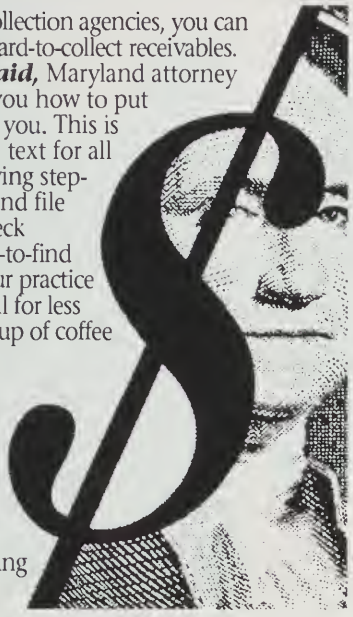


Their leadership and commitment to the health and well-being of our populace has led the way to cleaner air in our shared workplaces, to the reduction of head injuries to our children because of helmet regulation, and to the improved safety of all of us through numerous car safety features. The regulation of food and water standards provided by the public health service ensures the quality of life of all of us.

Med Chi also wants to express its deep appreciation to the many public health professionals who have helped us form public health partnerships. Our joint efforts to fight domestic violence, to eliminate under-age smoking, to identify and refer for other types of substance abuse, to screen for breast, cervical, and colorectal cancer, and to foster the birth of healthy babies lead the way to a healthier and happier life for the public we serve.

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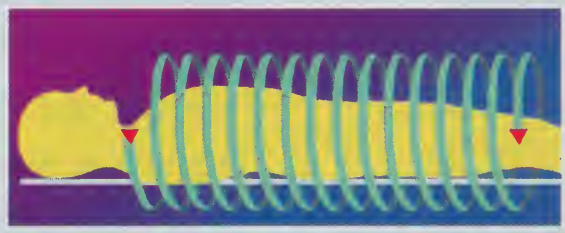
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Chief Executive Officer's Newsletter

April 1996

Med Chi Annual Meeting programs available

The preliminary program for Med Chi's 198th Annual Meeting was mailed to members in early March. The program for this year's meeting, "Contemporary Medicine: Innovative Approaches and Practice Issues," contains information on the CME programs, social events, and agenda items to be offered at the meeting on April 25-27, 1996, at the Turf Valley Inn & Country Club in Ellicott City. If you did not receive a program, please contact Beth Schwartz or Heather Johnson in Med Chi's communications department at 800-492-1056 to get your copy. Also, don't forget to mail or fax in your registration for the meeting as soon as possible.

Directory changes

Changes to the *Med Chi 1996 Membership Directory* will be published in the June 1996 issue of the *Maryland Medical Journal*. If you would like to include a change to your listing, please call Wanda Griebel in the membership department at 410-539-0872 or 800-492-1056, ext. 330.

Seward assumes top staff role at AMA

On March 12, P. John Seward, M.D., a family physician from Rockford, Illinois, assumed the role of executive vice president of the AMA, the organization's chief executive officer. Dr. Seward replaces James S. Todd, M.D., a New Jersey general surgeon who has held office since 1990. "Dr. Seward is a born leader who possesses enormous strengths as a consensus-builder and has a strong record in shaping the direction of national health policy," said AMA board chairperson Nancy W. Dickey, M.D.

While maintaining an active medical practice and serving more than two decades as Winnebago (Ill.) County Coroner, Dr. Seward pursued his special interest in patient advocacy through the AMA. He was elected chairperson of the AMA Council on Legislation in 1987 and joined the AMA Board of Trustees in 1990, becoming board chairperson in June 1994. He resigned from that post in December 1995, shortly after an AMA board search committee confirmed his selection to the office of EVP.

AMA urges dues waiver for reservists serving in Bosnia

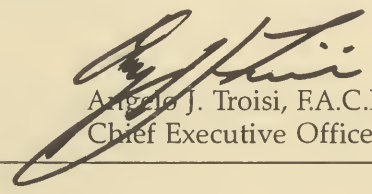
The AMA has offered to waive 1996 dues for any member reservist who has been called to active duty as part of the peace-keeping mission in Bosnia. Many county and specialty societies have chosen to make similar offers as well. For those who have not, please consider doing so, and inform the AMA of your actions.

The AMA urges you to publicize widely these offers of waived dues so all of our members may take full advantage of this offer. Also, if you are aware of members from your society who are serving in Bosnia, please forward those names to the AMA.

NIH sponsors Technology Assessment Conference

The National Institutes of Health is sponsoring a Technology Assessment Conference on the Management of Temporomandibular Disorders from April 29 to May 1, 1996, at the William N. Natcher Building in Bethesda, Maryland.

To register for the Technology Assessment Conference on Management of TMD or to obtain further details, call 301-770-3153 or write: Conference Register, Technical Resources International, Inc., 3202 Tower Oaks Boulevard, Rockville, MD 20852.



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Officer

Medical
and Chirurgical Faculty
of Maryland

President's Letter

Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to members

Dear Colleague:

You may have recently received an invitation to join a new medical organization identifed as the Maryland Medical Association, Inc. (MMA). Please be advised that MMA has no connection with Med Chi. MMA's literature indicates that it has been formed for the purpose of promoting managed care and HMO-friendly legislation.

In addition to informing our members and affiliates about this organization, Med Chi is contemplating taking legal action against MMA in connection with its name. We believe their name is deceptively similar to one we have used for years, The Maryland State Medical Society.

Med Chi is the Maryland State Medical Society, and this is how we are known to the public and State policy-makers when we represent Maryland physicians together with our component county and specialty societies. We represent physicians from every sector of the state, including those in public health, private practice, academia, and managed care. We are the many voices within the house of medicine.

The Medical & Chirurgical Faculty of the State of Maryland was established by the General Assembly in 1799 to promote the advancement of medical knowledge in the interests of both the public and medical profession. Through the ensuing two centuries our organization has answered that challenge. Today our services include state-of-the-art medical information services for our members as well as medical policy efforts on behalf of the public — our patients — like the 1995 Patient Access Act, which preserves the patient's right to choose his or her own doctor.

We will continue our mission of service to the field of medicine and support the rights of our patients — including the right to choose their own doctor.

Sincerely, J Richard Lilly, MD

J. RICHARD LILLY, M.D.
President

Medical
and Chirurgical Faculty
of Maryland

President's Letter

Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to members

Dear Colleague:

Since April is Cancer Control Month, it seems appropriate to use this issue of the *Journal* to inform our members of two new grants awarded to Med Chi by the Maryland Department of Health and Mental Hygiene. We are especially pleased with these grants, because they will enable Med Chi to provide education on cancer prevention, a critical topic in Maryland, and also because we will use innovative ways to provide this education.

The first grant provides funds for Med Chi to introduce an office-based system of cancer prevention to primary care practices throughout the state. The system was developed by Allen J. Dietrich, M.D., of Community and Family Medicine at Dartmouth Medical School. It is designed to improve the level of breast, cervical, and colorectal cancer screening as well as improve the level of counseling in nutrition and smoking cessation. Office practices that participated in the first trial of the system showed increases in provision of all target services. Mammography referral, for example, increased from less than 60 percent to nearly 80 percent, and home stool occult blood testing, clinical breast examination, breast self-examination advice, and smoking cessation advice levels increased by 20 to 25 percent.

Under this grant, Med Chi will send office facilitators to individual practices. The facilitators will work with practice staff to assess their existing preventive care routine and introduce the "office system" concept of preventive care. Tools for implementing the system include a workbook; prevention flow sheets; patient intake questionnaires; external chart identifiers; and patient education tools, such as health diaries and recall postcards. The system is flexible, so that practices can choose which tools meet their specific needs. After practice staff choose the tools they want to use in their practice, Med Chi's office facilitators will remain available to help them incorporate the tools in their office routine over time.

With its second new grant, Med Chi will provide primary care physicians with education in the Mammacare method of clinical breast examination. The Mammacare method is the result of an extensive research program that was funded by the National Cancer Institute in order to identify and standardize the best way to perform clinical

breast examination. Investigators first analyzed lump detection as a skill in the laboratory and then systematically experimented with various examination techniques until they discovered the most effective procedures.

The clinical breast examination education will be available in two forms: a small group training course and a self-teaching tutorial. The self-teaching tutorial, which includes a video and silicone breast models, will be delivered to individual physicians at their offices. The small group sessions will be taught by physician-educators using silicone breast models and patient surrogates. Med Chi has already recruited an impressive group of physician-educators for the small group sessions, including Drs. Cecelia Brennecke, Neil Friedman, Edward Lewison, Khouri Nagy, and Joseph Zebley. Since research indicates there is a danger of breast examination skills deteriorating over time, Med Chi will offer skills enhancement training to participants in both forms of the clinical breast examination program six months after the first training.

Med Chi plans to begin delivering its programs in office-based cancer prevention and clinical breast examination in May or June. To ensure that physicians in all areas of the state have an opportunity to participate, Med Chi will deliver the programs on a region-by-region basis, so that the programs will be offered in specific regions of the state for a limited time. Within the next month, we will develop a schedule for delivering the programs over the next three years. The schedule will be publicized here in the *MMJ* and primary care physicians will receive a letter notifying them when the programs will be available in their area of the state. Physicians who would like more information about the programs or who want to make sure they are included on our mailing list for the program, should contact Jade Leung in regard to the clinical breast examination courses or Carol Schwartz in regard to the office-based cancer prevention program. Both these individuals can be reached at 410-539-0872 or 800-492-1056. I hope all primary care physicians will take advantage of the unique opportunity to participate in these programs and contribute to the reduction of cancer morbidity and mortality in Maryland.

Sincerely, J Richard Lilly, MD

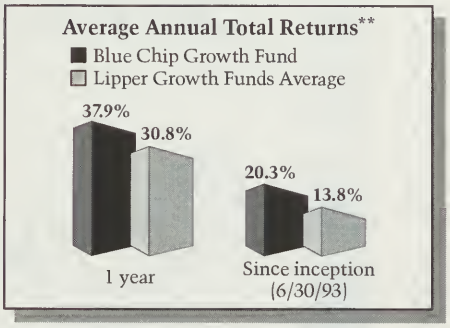
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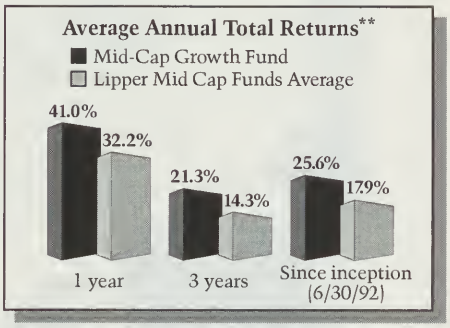
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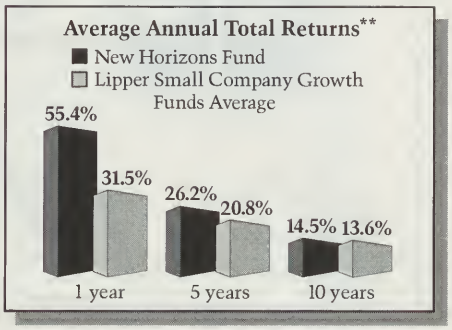
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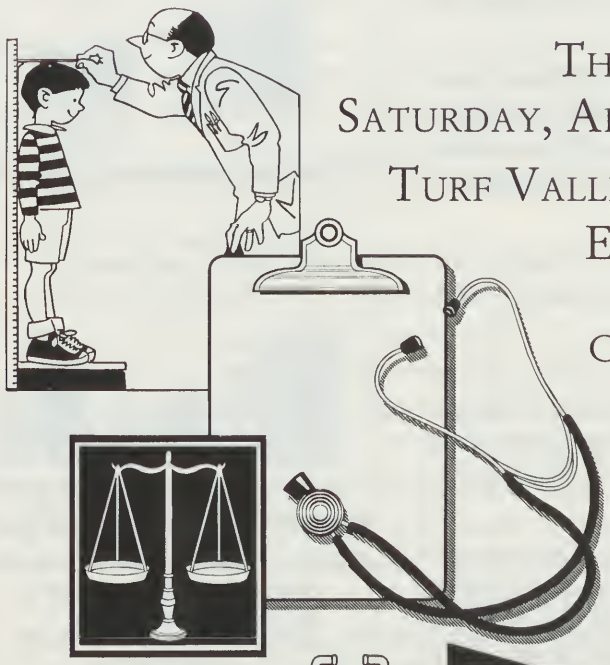
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1996 ANNUAL MEETING of the MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND

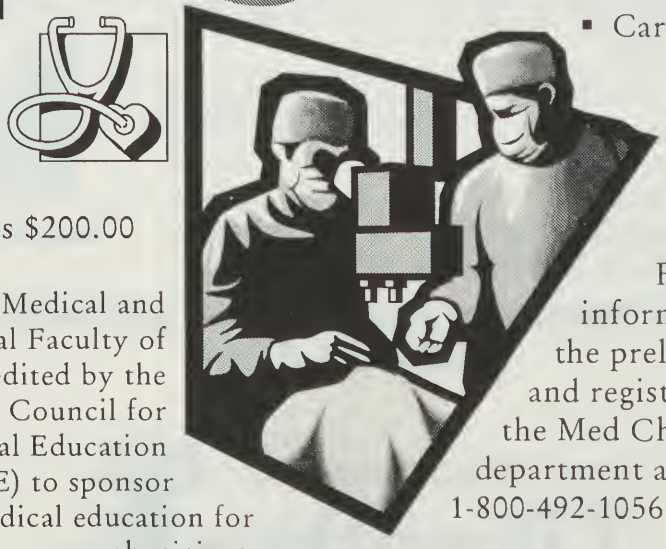


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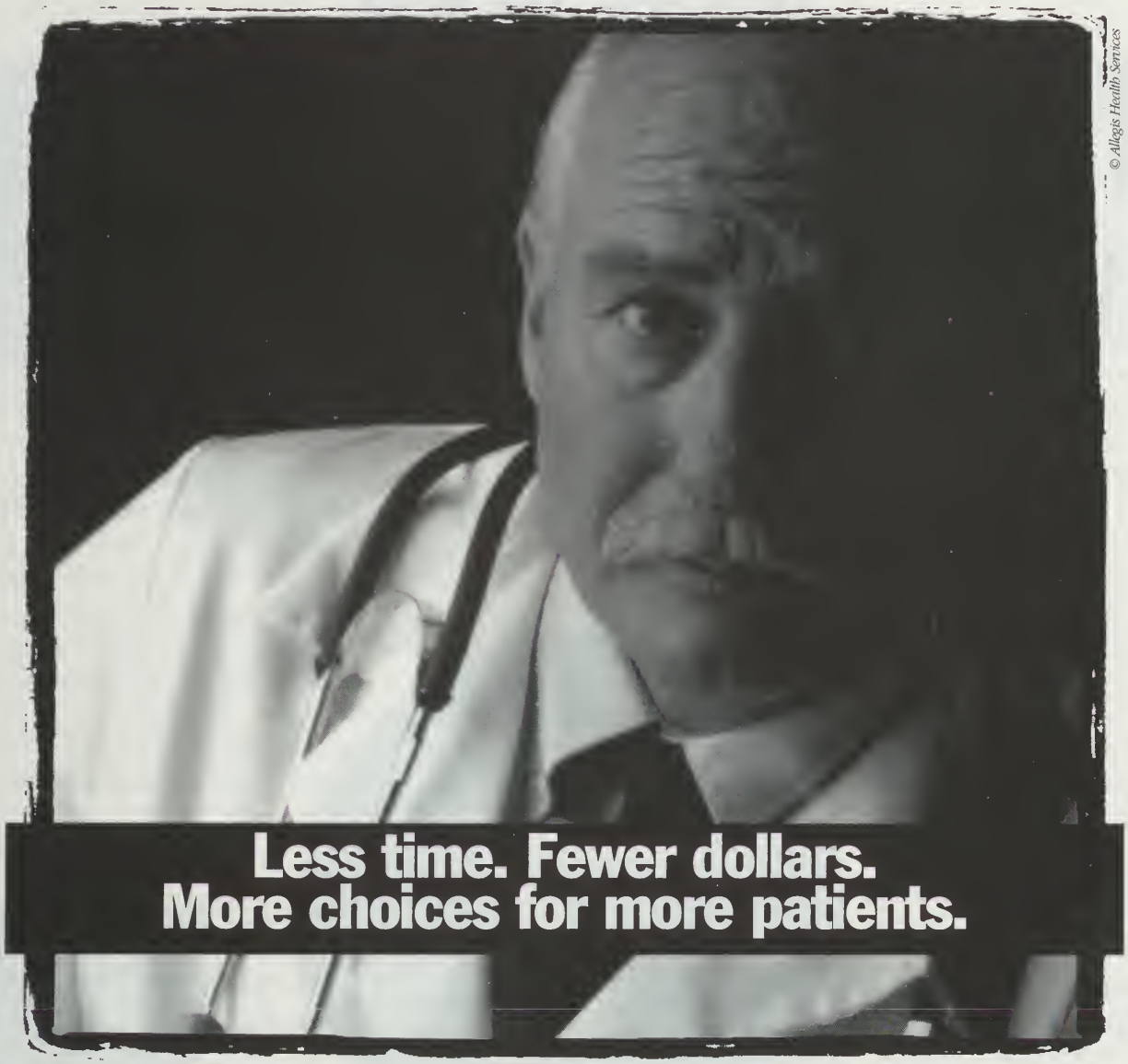
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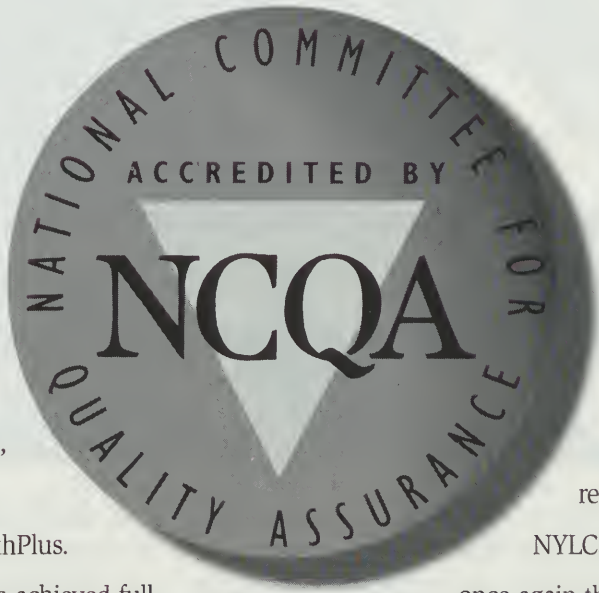
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Members in the News



CAROL W. GARVEY, M.D., M.P.H., former member of the Med Chi Board of Trustees, was recently appointed the new health officer for the Montgomery County Department of Health and Human Services. Dr. Garvey is the first woman to serve as health officer for the county. A graduate of the College of Physicians and Surgeons at Columbia University in New York, Dr. Garvey completed her internship and residency in internal medicine at the Washington Hospital Center in Washington, DC, and was a fellow with the Harvard Family Health Care Program in Boston, Massachusetts. Board certified in family practice, Dr. Garvey is an associate clinical professor of health care sciences in the division of family medicine and an assistant clinical professor of community and family medicine at the Georgetown University School of Medicine. Dr. Garvey is a founding member of the Primary Care Coalition of Montgomery County, past president of the Montgomery County Medical Society, and former treasurer and secretary of Med Chi.



ALLAN D. JENSEN, M.D., speaker of the Med Chi House of Delegates, was recently appointed to the board of trustees of the American Academy of Ophthalmology. He will serve as the association's senior secretary for advocacy, which concentrates on federal health care issues. Dr. Jensen received his medical degree from The Johns Hopkins University School of Medicine, completed an internship at Union Memorial Hospital in Baltimore, and was chief resident at the Wilmer Ophthalmological Institute of The Johns Hopkins Hospital. A diplomate of the National Board of Medical Examiners and the American Board of Ophthalmology, Dr. Jensen is an associate professor of ophthalmology at Hopkins and has staff appointments at the Greater Baltimore Medical Center and Union Memorial and Johns Hopkins hospitals. Dr. Jensen is past president of the Maryland Ophthalmological Society and the Baltimore City Medical Society and is a member of the boards of directors of Union Memorial Hospital and the Baltimore Opera Company.



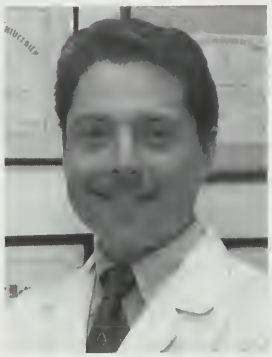
J. RICHARD LILLY, M.D., the current president of Med Chi, has been selected as one of the 50 most positive physicians in the country by the Positive Medicine Project based in Philadelphia, Pennsylvania. A graduate of Temple University School of Medicine in Philadelphia, Dr. Lilly completed his internship at Church Hospital in Baltimore. He is a diplomate and charter fellow of the American Academy of Family Practice and past president of the Maryland Academy of Family Physicians and the Prince George's County Medical Society. A founding partner and former chief of staff, Dr. Lilly is a member of the board of trustees at Doctors Community Hospital in Lanham, Maryland. He is also the founder of the family practice program at Prince George's General Hospital. Currently, Dr. Lilly has a private family medicine practice in Hyattsville.



ALAN E. OSHINSKY, M.D., director of the Center for Snoring and Sleep Disorders in Baltimore and the Mercy Sleep Diagnostic Center at Mercy Medical Center, has been named director of the Tinnitus Relief Center at Mercy Medical Center. A specialist in the diagnosis and treatment of snoring, nasal and sinus diseases; allergies; voice disorders; and pediatric ear, nose, and throat diseases, Dr. Oshinsky received his medical degree from Central University of the Caribbean School of Medicine at Cayey Cayey, Puerto Rico. He completed his residency at the University of Maryland Medical Center in Baltimore and was a chief resident in the ear, nose, and throat department. A board-certified ear, nose, and throat surgeon, Dr. Oshinsky is a member of the American Academy of Otolaryngology-Head and Neck Surgery, and past president of the Maryland Society of Otolaryngology-Head and Neck Surgery. He is a member of the Mercy Medical Center operating room and Northwest Hospital quality assurance committees.



LARRY A. SNYDER, M.D., a diagnostic radiologist, has been named a fellow of the American College of Radiologists. Dr. Snyder received his medical degree from the University of Maryland School of Medicine, interned at Sinai Hospital of Baltimore, and completed his residency in radiology at the University of Maryland Medical Center. An assistant professor in the department of diagnostic radiology at the University of Maryland School of Medicine, Dr. Snyder practices at Franklin Square Hospital Center, Northwest Hospital Center, and the James Lawrence Kernan Hospital. He is a diplomate of the American Board of Medical Examiners, chairperson of the Judicial Affairs Committee of the American Radiologic Society, and a member of the Peer Review Committee at Med Chi.



JAMES E. VOGEL, M.D., an instructor in plastic surgery at The Johns Hopkins University School of Medicine, has been named president-elect of the International Society of Hair Restoration Surgeons. In addition, he has also been selected to present his new hair restoration techniques in an educational telecast to plastic surgeons. Dr. Vogel received his medical degree at Mount Sinai School of Medicine in New York and completed residencies in general surgery at Tufts-New England Medical Center in Boston and the University of North Carolina at Chapel Hill. He also completed a residency in plastic surgery at The Johns Hopkins Hospital. A fellow of the American College of Surgeons and a diplomate of the National Board of Medical Examiners, Dr. Vogel has staff appointments with the Northwest Hospital Center, Greater Baltimore Medical Center, St. Joseph Medical Center, and Hopkins, Children's, Union Memorial, and Carroll County hospitals.

ABOUT THE COVER PHOTOGRAPHER

Robert A. Ralph, M.D., is a Rockville ophthalmologist on the clinical faculties of The Johns Hopkins and Georgetown universities. He is a scenic and abstract photographer whose images have won numerous state and regional awards. He has also labored 17 years on a unique art form called *cluster constructions,* in which he transforms two-dimensional photographs of storefronts, display windows, highway signs, and vehicles into three-dimensional arrays of overlapping and interlocking architectural forms. These assemblages grow outward from finished backgrounds, rise on cantilevered armatures as towers of color, or explode out of partially opened cigar boxes. Some of these pieces float within acrylic museum cases for wall exhibit, while others are displayed on pedestals so they can be viewed from all sides. Dr. Ralph and his cluster constructions have been featured in several gallery exhibitions and in national publications such as *American Artist* magazine and have earned first place honors in the Columbia (Maryland) Arts Festival. His photograph of a great egret appeared on the cover of the February 1993 issue of the *Maryland Medical Journal.*

Speak Out

Hippocrates on HMOs

Where was I to find the answers? Should I participate in HMOs or not? Should I allow someone else to come between me and the patient and tell me how to practice, or should I refuse to participate and find myself with very few patients left? If I do not participate, many of my patients will feel abandoned. If I do participate, I run the risk of abandoning the principles of medical ethics and harming patients. Having had no luck finding answers elsewhere, one night I wearily sat down at the computer. Searching the Internet, I got a lot of information, but no answers. In desperation, I decided to go right to the top to find out what the father of medicine would say. I keyed an address: http:/ /ancientgreece/medicine.hippocrates.

A face took shape on the screen and Hippocrates himself asked, "What can I do for you?"

Stammering with surprise and embarrassment, I replied, "I'm sorry to have disturbed your sleep."

Hippocrates: "It doesn't matter. I can't sleep."

Me: "Why not?"

Hippocrates: "It's the news about managed care. After 2400 years, the HMOs are back, ruining medical care, and destroying the profession of medicine. Building on the past, your generation has brought medicine to undreamed-of heights. Now, the HMOs are driving medicine over the cliff, just as they did in my time."

Me: "Excuse me, sir. How do you know about this? Where are you?"

Hippocrates: "In Hades, of course. But it's not the same as what you call hell. We have all the amenities here, including medical journals, newspapers, cable TV, and PCs. We're on the Internet and the World Wide Web. We have access to all the news media. The only thing that makes it resemble hell is that no one will listen to us."

Me: "You said you had HMOs in your time?"

Hippocrates: "It was during the period you call the fifth century BC, the Golden Age of Greece. In Athens, it was the Age of Pericles. Philosophy, art, and science flourished throughout the Hellenic world. Moreover, good health was worshiped and access to medical care was considered a necessity. These were the best of times, but they soon became the worst of times."

Me: "How?"

Hippocrates: "Because the services of physicians were so highly valued, Hellenic Medical Organizations (HMOs) were formed. These were idealistically designed to provide good quality medical care to everyone at a nominal cost. The HMOs grew slowly at first and worked reasonably well for a few

Reprints: Gerald D. Klee, M.D., 28 Allegheny Ave., Suite 1300, Towson, MD 21204

years. Alas, not all Greeks were lovers of truth. There was an influential group of pseudophilosophers known as sophists who taught that truth and morality are merely matters of personal opinion. As a result, we had some highly sophisticated liars and thieves among us. It wasn't long before those rascals spotted a business opportunity in HMOs. A revolution in health care soon took place."

Me: "Really? What was it like?"

Hippocrates: "It followed a pattern that should be familiar to you. Business managers took over. They cut costs by cutting services and reducing physician fees, then put most of the savings into their own pockets. They relegated physicians to a subordinate role and told them how to diagnose and treat patients. Physicians were allowed very little time with patients. In undermining the relationship between the patient and the physician, they destroyed the patient's trust in the physician and with it the therapeutic alliance. The quality of care deteriorated, but the managers persuaded the people that they never had it so good. Besides, if something went wrong, they told the people it was the physician's fault.

"Before long, most Greeks belonged to HMOs and, despite reservations, most physicians chose to participate, if they could, in order to continue seeing patients. Except for one or two honest HMOs, I refused to participate on ethical grounds. My major objections to HMOs included their interference with patient care as well as the loss of confidentiality between the patient and the physician. Whatever secrets the patient imparted to the physician had to be passed on to the HMO. Soon, this private information was being gossiped about in public."

Me: "What happened to your practice?"

Hippocrates: "I lost a great deal of my practice. Although I had serious financial difficulties, I managed to survive on the little island of Cos and to find patients among the very poor and among those who shared my distrust of HMOs. I knew it was only a matter of time before the fiasco would end. But who could say exactly when or how? Finally, the storm struck. You have heard of the plague of Athens?"

Me: "Is that the one Thucydides wrote about?"

Hippocrates: "Very good! But Thucydides didn't tell the whole story. It was a terrible event. People were dying left and right in Athens and chaos reigned. No one knew the cause or the cure. The HMOs were of no use. The HMO managers took all the money and fled. Those HMO physicians who had not perished in the plague were driven out by angry mobs. Their innocence and good intentions were not enough to save them. Pericles, the aging leader of Athens, sent a message to me at Cos, begging me to come. I could not refuse. In a while the plague was over, the dead were buried, and a semblance of order was restored."

Me: "How did you accomplish that?"

Hippocrates: "It is said that I drove out the plague by lighting fires in the public squares. That is not true. The plague was not a single disease as many believe,

but a variety of illnesses that had been silently taking hold of the people during the years they had submitted to HMOs. One last disease, probably coming in from abroad, was enough to trigger the final catastrophe. The HMOs were the *real* plague of Athens. In classic fashion, after reaching a crisis, the people of Athens cured themselves by expelling the offending agent—the HMOs."

Me: "So you don't take any credit for saving Athens from the plague?"

Hippocrates: "Of course not. I always taught that with the help of the gods, the patient heals himself. That is what happened in this case. The physician can only promote the process of healing. I am happy that I had enough wisdom to stay out of HMOs and avoid aggravating the problem."

Me: "When did you write the Hippocratic Oath?"

Hippocrates: "I did not write it. The Athenian people composed most of it. After their experience with HMOs and plague, they insisted that physicians must put patients first and give them their very best. Nothing and no one should come between physicians and their sacred duty to their patients. The oath was published in the *Journal of the Aegean Medical Association* (JAMA), of which I was editor. Perhaps that is how my name was mistakenly attached to it."

Me: "The oath seems pretty reasonable. Why do you think some people now say it is outdated and should be discarded?"

Hippocrates: "Some of it is out of date. But you'll have to figure out for yourself why anyone would not want to put the patient first. The HMOs in Athens didn't put the patient first and look what happened. When do you think the plague will strike in your country?"

Me: "Do you really believe that? No, it couldn't happen here!"

Hippocrates: "See, I told you no one listens."

Me: "Do you have any advice for me? Should I or should I not participate in HMOs? It's a tough decision. There is so much at stake."

Hippocrates: "You haven't been listening."

Me: "Please, tell me what I should do."

Hippocrates: "I would not presume to tell you what to do. Physicians in my time were faced with the same predicament. When they sought my advice, I responded with an aphorism that has since become widely quoted. Perhaps you are familiar with it. It goes like this:

> *Life is short, the Art long, opportunity fleeting, experience treacherous, judgment difficult. The physician must be ready, not only to do his duty himself, but also to secure the cooperation of the patient, of the attendants, and of the externals."*

The screen clicked off and I woke with a start.

Gerald D. Klee, M.D.

Dr. Klee is a psychiatrist in private practice in Towson, Maryland, and a lecturer in psychiatry at The Johns Hopkins University School of Medicine. ■

James D. Michelson, M.D., Uri Ahn, M.D., and Donna Magid, M.D., are the authors of a study to determine the average frequency of follow-up roentgenograms in ankle fractures treated by casting, as well as the clinical impact of these roentgenograms. Results indicate that secondary displacement of either the talus or fibula in a stable ankle fracture is very unusual, suggesting that frequent roentgenograms are not justified on clinical grounds *(The Journal of Trauma: Injury, Infection, and Critical Care* 1995;39:1119–1122). Dr. Michelson is an associate professor of orthopedic surgery, Dr. Ahn is a postdoctoral fellow in the division of orthopedic surgery, and Dr. Magid is an associate professor of radiology with a joint appointment in orthopedic surgery at The Johns Hopkins University School of Medicine.

Oliver D. Schein, M.D., M.P.H., Eric B. Bass, M.D., M.P.H., and Earl P. Steinberg, M.D., are the authors of a study to assess the test-retest reliability and responsiveness of the VF-14 index of functional impairment in patients with cataracts. Results indicate the VF-14 was reproducible in stable patients during an 8-month period, and it was more responsive to clinically significant changes in vision than was a genetic health status measure (*Arch Ophthalmol* 1995;113:1508–1513). Dr. Schein is an associate professor of ophthalmology, Dr. Bass is an assistant professor of medicine, and Dr. Steinberg is a professor of medicine (on leave) and an associate professor of radiology at The Johns Hopkins University School of Medicine.

Jonathan A. Patz, M.D., M.P.H., an instructor in medicine at The Johns Hopkins University School of Medicine, is among the authors of an article describing the effects of increased global temperatures on the introduction and dissemination of many serious infectious diseases (*JAMA* 1996; 275:217–223).

Stephen C. Jacobs, M.D., head of the department of neurology at University of Maryland Medical Center, is among the authors of a study of the basal level of apoptosis and bcl-2 expression in transitional cell carcinoma of the bladder and their significance in tumor progression (*J Urol* 1996;155:316–320). Although they found no statistically significant correlation between the frequency of apoptosis and the pathological stage of bladder tumors, there was a strong direct correlation between an increased rate of cell proliferation and bladder cancer progression.

Frederick L. Brancati, M.D., M.H.S., Lawrence J. Appel, M.D., and Paul K. Whelton, M.D., MSc, are among the authors of a study indicating that potassium supplementation reduces blood pressure substantially in African Americans consuming a diet low in potassium(*Arch Intern Med* 1995;156:61–67). Drs. Brancati and Appel are assistant professors of medicine and Dr. Whelton is a professor of medicine at The Johns Hopkins University School of Medicine.

Lewis J. Rubin, M.D., is among the authors of a study comparing the effects of the continuous IV infusion of epoprostenol (formerly called prostacyclin) plus conventional therapy with those of conventional therapy alone in 81 patients with severe primary pulmonary hypertension. Epoprostenol produced symptomatic and hemodynamic improvement, as well as improved survival (*N Engl J Med* 1996;334:296–301). Dr. Rubin is a professor of medicine and head of the division of pulmonary and critical care medicine at the University of Maryland Medical Center.

Daniel J. Pereles, M.D., is the coauthor of the chapter entitled "Arthroscopic Findings of Ligaments Around the Wrist" in *Imaging of the Wrist and Hand* published by Saunders in 1996. Dr. Pereles is director of sports medicine at Montgomery Orthopedic.

Douglas A. Jabs, M.D., a professor of ophthalmology and medicine at The Johns Hopkins University School of Medicine, is the chairperson of The Cytomegalovirus Retreatment Trial, a multicenter, randomized, controlled clinical trial to determine the best therapeutic regimen, using currently approved drugs, for the treatment of relapsed cytomegalovirus (CMV) retinitis. The results indicate that for patients with AIDS and CMV retinitis whose retinitis has relapsed and who can tolerate both drugs, combination therapy with foscarnet and ganciclovir appears to be the most effective treatment (*Arch Ophthalmol* 1996;114:23–33).

Ling Li, M.D., and John E. Smialek, M.D., are the authors of a report on drug abuse deaths in Maryland based on cases from the office of the chief medical examiner (*J Forensic Sci* 1996;41:106–109). Dr. Li is an associate pathologist and Dr. Smialek is a professor of pathology in the division of forensic pathology at the University of Maryland Medical Center.

Prakash Sampath, M.D., Charles J. Yeo, M.D., and James N. Campbell, M.D., are the authors of a report describing nerve injury associated with laparoscopic inguinal herniorrhaphy (*Surgery* 1995;118:829–833). Dr. Sampath is a postdoctoral fellow in neurological surgery, Dr. Yeo is an associate professor of general surgery, and Dr. Campbell is a professor of neurological surgery and director of the Jacob and Hilda Blaustein Outpatient Pain Treatment Program at The Johns Hopkins University School of Medicine.

Donald A. Henderson, M.D., M.P.H., a professor of epidemiology at The Johns Hopkins University School of Hygiene and Public Health, is among the authors of an article reporting on the elimination of measles in the Americas (*JAMA* 1996;275:224–229).

Itzhak Brook, M.D., MSc, is the coauthor of a review of clinical and laboratory data on the microbiologic and clinical characteristics of patients with mediastinitis (*Arch Intern Med* 1996;156:333–336). Dr. Brook is from the department of pediatrics at Navy Hospital in Bethesda.

J. Stephen Dumler, M.D., an assistant professor of pathology at University of Maryland Medical center, is among the authors of a retrospective case review study of the clinical and laboratory features observed in patients with human granulocytic ehrlichiosis (HGE). The differential diagnosis for patients who develop an influenza-like illness following a tick bite should include HGE (*JAMA* 1996;275:199–205).

Theodore M. Bayless, M.D., is among the authors of a retrospective review of 105 consecutive patients undergoing rectal squamous mucosectomy and ileal anal pull-through procedures by a single surgeon during a 5-year period. They report that the rectal mucosectomy can be safely extended to the levels of perianal skin with no loss in continence or function. They recommend that this be adopted as the standard for this procedure to ensure complete eradication of the underlying pathologic condition (*Surgery* 1995;118:797–802). Dr. Bayless is a professor of medicine at The Johns Hopkins University School of Medicine.

Richard E. Chaisson, M.D., is a member of the editorial review panel for the peer-reviewed HIV/AIDS information World Wide Web site created in January by *The Journal of the American Medical Association* and Glaxo Wellcome Inc. Dr. Chaisson is an associate professor of medicine, epidemiology, and international health, and director of the AIDS Service at The Johns Hopkins Medical Institutions.

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"My special thanks to [our medical expert], who tightened quite a few loose ends in our defense. He really had an enormous impact on behalf of our case which I feel helped the jury shape their final verdict.

"In conclusion, one of the most important highlights in my medical career, so far, occurred [on that day] when I was exonerated by the jury and again, I am glad that I have a very good malpractice insurance company behind me."

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We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission Requirements

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

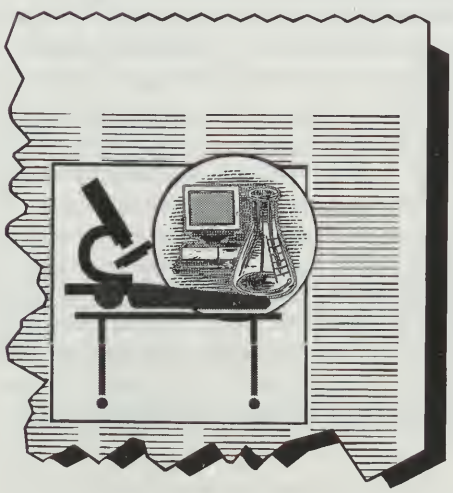
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- Evidence-based medicine: science or politics?
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Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.

All submissions should conform to Maryland Medical Journal requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor, 1211 Cathedral Street, Baltimore, MD 21201; 410-539-0872 or 1-800-492-1056; FAX 410-547-0915.



The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects), membership and legislative news, continuing medical education notices, and programs and policies of the faculty.*

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  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

  In addition, the letter must include a paragraph that transfers copyright ownership to the *MMJ* in the event that the work is published.

- ***Manuscript preparation***—Manuscripts should be submitted to Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585. Manuscripts must be original material not previously published and not under consideration by another publication. An abstract of 100 to 300 words is required.

  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

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Preconception health care for the primary care practitioner

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ABSTRACT: *There will always be birth defects and pregnancy complications due to factors beyond our control. However, we are rapidly discovering many interventions women can use to optimize their chances of having a healthy pregnancy and baby. Most of these, such as immunization and normalization of a diabetic woman's glycosylated hemoglobin level, are most effective when begun before conception. Since the discovery of the congenital rubella syndrome in 1941, there has been a steady accumulation of information on the prevention of birth defects through preconception health. In just the last few years, we have learned that folic acid can decrease neural tube defects, angiotensin converting enzyme inhibitors are teratogenic, and zidovudine can decrease the vertical transmission rate of human immunodeficiency virus. The Varivax vaccine released last year is expected to decrease the perinatal morbidity from varicella. By using the time before conception, we may be able to fully maximize the benefits of good nutrition, exercise, medical screening, and avoidance of environmental toxins.*

There seems to be a general consensus that preconception health reduces the risk of birth defects, low birth weight, and poor pregnancy outcomes. In 1993, the March of Dimes Birth Defects Foundation and the Committee on Perinatal Health concluded that a preconception visit should be a standard part of an annual medical visit for all women of childbearing age.[1]

The basic goal of preconception health care is for a woman to be in the best possible health at the time of conception. This is done by maintaining

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general health through proper diet and exercise and by identifying any possible medical, genetic, and/or environmental conditions that may be hazardous to pregnancy (**Table 1**).

The major organs are formed between 17 and 56 days after conception. Exposure to harmful conditions (teratogens) during that time may cause a mistake in the organ formation process, resulting in a congenital malformation. Teratogens may include medical conditions (diabetes, epilepsy), radiation, chemicals, heat (hyperthermia), and medications. This embryonic period begins about three days after the first missed menstrual period— when most women do not even know they are pregnant—and ends two weeks after the second missed period—before a significant number of women have had their first prenatal visit. If we are to have an impact on this extremely vulnerable time, prenatal care must begin before conception. According to perinatal experts, "The preconception visit may be the single most important health care visit viewed in the context of its effect on pregnancy."[2]

Table 1. Preconception risk factors

Medical
- pre-existing medical conditions
- medications (prescription, over-the-counter, vitamins)
- lack of immunity to rubella, varicella, hepatitis
- ethnic origin
- family history of birth defects, mental retardation, genetic abnormalities

Obstetric history
- previous stillbirth, neonatal death, spontaneous abortions, need for neonatal intensive care
- previous child with a birth defect
- delivery of a child >9 lb or <5.5 lb
- diabetes or hypertension during pregnancy

Lifestyle
- use of cigarettes, alcohol, illicit drugs
- close association with cats
- use of sauna or hot tub
- poor nutrition
- exposure to lead, mercury, radiation, chemicals
- occupational hazards
- psychosocial stress

Nutrition

Malnourished women tend to have low birth weight babies. Overweight women tend to have pregnancy-induced hypertension, difficulty during labor, and diabetes. Good nutrition should be stressed for all women, with an emphasis on the three nutrients especially important before conception: calcium, iron, and folic acid.

A calcium intake of 1200-1500 mg/d during early adulthood, as recommended in 1994 by the National Institutes of Health, can prepare for the needs of fetal bone and teeth mineralization as well as offset postmenopausal osteoporosis. The recommended daily intake is the equivalent of 4 to 5 glasses of milk (use of skim milk reduces fat ingestion).

Because of poor nutrition or a history of menorrhagia, many women are predisposed to an iron deficiency anemia. Preconception hemoglobin/hematocrit screening will determine those women who may benefit from an enhanced iron diet or supplementation.[3] The Institute of Medicine recommends a therapeutic preconception regimen of ferrous iron for women with a hemoglobin level <12 g/dl.[3] Because iron requirements double during pregnancy, even nonanemic women are routinely given iron supplementation by the second trimester.[3] Preconception diagnosis and treatment of iron deficiency anemia can prevent a more severe anemia from occurring later during pregnancy.

Folic acid taken before conception can potentially decrease the number of neural tube defects by 50%.[4] Because the neural tube forms by day 26 after conception, the Centers for Disease Control and Prevention (CDC) recommends that all women of childbearing age take folic acid 0.4 mg/d.[5] For a woman who already has a child with a neural tube defect, folic acid 4.0 mg/d can reduce the risk of recurrence by 75%.[6] Folic acid is found in a variety of foods (**Table 2**) and most multivitamins contain 0.4 mg, the recommended daily allowance. Results of a recent study indicate that women who take multivitamins containing folic acid also reduce by 25% to 50% the risk of delivering a baby with orofacial clefts.[7] Although neural tube defects have also been linked to zinc deficiency in animal studies, human studies are inconclusive. However, zinc does seem to decrease low birth weight in certain human populations.[8]

Excessive doses of vitamins can also cause birth defects. A recent Boston University study shows that vitamin A in doses of 10,000 units daily may lead to birth defects.[9] The usual dose in most multivitamins is 5,000 units.

Before conception, women with phenylketonuria (PKU) should resume a low phenylalanine diet; otherwise, high phenylalanine levels may cause fetal mental retardation. It is important to question women about their childhood diet so that appropriate testing for PKU can be done for those who may be unaware they have the disease.

Exercise

Women who are physically fit before pregnancy tend to stay fit during pregnancy. Pregnancy itself is hard work and it is easier for a woman to do that work if her lifestyle includes cardiovascular, flexibility, and muscle condition-

Table 2. Foods rich in folic acid

	mcg
fortified cereals	100-400
lentils(½ cup)	180
chickpeas (½ cup)	150
liver (3 oz)	150
spinach (½ cup)	130
kidney beans (½ cup)	115
orange juice (conc. 1 cup)	110
broccoli (2 stalks)	90
romaine lettuce (1 cup)	75
peas (½ cup)	60

ing exercises. Although no studies show any benefit to perinatal outcome with exercise, there is definitely an increase in maternal sense of well-being.[10] Non-weight-bearing exercises such as swimming, cycling, or brisk walking appear to be the safest from preconception into pregnancy. During pregnancy, risk of injury may be increased with any activity involving possible abdominal trauma (e.g., vigorous contact sports, falling from a high place) or severe changes in barometric pressure (e.g., scuba diving).[11]

Special precautions are needed to avoid elevated maternal core body temperature during the first trimester. Animal studies have shown an increase in congenital malformations when maternal core temperature rose by 1.5° C. Strenuous exercisers must remain well hydrated and possibly modify their activity level in hot, humid weather so that their core temperatures stay below 102° F. Milunsky[12] determined that exposure to other forms of heat such as saunas, hot tubs, and maternal fever is also associated with an increased risk of neural tube defects in humans. It may be prudent to limit hot tub or sauna time to 15-minute intervals and to take acetaminophen for maternal fever higher than 102°F.

Women with medical conditions such as chronic hypertension; active thyroid disease; or cardiac, vascular, or pulmonary disease should consult their physicians before starting on any exercise program.[10] Also, women with a history of obstetric complications such as premature labor, incompetent cervix, pregnancy-induced hypertension, premature rupture of membranes, intrauterine growth retardation, or persistent second- or third-trimester bleeding should avoid exercise during pregnancy.[10]

Habits to break

Cocaine. Pregnant cocaine users are at risk for premature deliveries, intrauterine growth retardation, and placental abruption. Babies may be born with low birth weight, central nervous system abnormalities, and genitourinary malformations.[13]

Heroin. Babies of narcotic addicts go through intense postnatal withdrawal characterized by high-pitched screams, tremors, sweats, poor feeding, inability to be comforted, vomiting, diarrhea, hypertonicity, and even seizures.[14]

Alcohol. The fetal alcohol syndrome (FAS) occurs in about 1 of every 750 births in the United States.[14] It consists of growth retardation, facial abnormalities, and central nervous system dysfunction that ranges from mental retardation (average IQ, 63) to long-range behavioral abnormalities such as attention deficit disorder. FAS is the single most known cause of mental retardation.[14] Although there is a greater chance of developing FAS with increasing doses of alcohol, the threshold dose remains unknown. In one study, about 19% of children born to women who consumed more than 4 drinks per day developed some features of FAS, as compared with 11% born to women who consumed 2 to 4 drinks per day, and 2% to women who drank less.[15] No studies show any harm for women who have an occasional drink. One to two alcohol drinks per day, however, can cause an increase in spontaneous abortion and low birth weight babies.[15] Binge drinking seems to have a greater teratogenic effect than a similar quantity of alcohol consumed over a longer period of time.

Cigarettes. One third of women are smokers at the time of conception. If all women stopped smoking before pregnancy, we could reduce the infant and fetal death rate by 10%.[16] Every time a puff of smoke is taken, 4000 chemicals are inhaled. Nicotine, a vasoconstrictor, decreases blood flow to the uterus and placenta. Carbon monoxide lowers arterial oxygen levels of the mother and fetus. Newborns are more apt to be low birth weight, the criterion most often used for predicting perinatal morbidity and mortality. Cigarette smoke also leads to increased spontaneous abortions, placental problems, premature rupture of membranes, and prematurity. Women who smoke have a greater incidence of infertility and ectopic pregnancy.[17] Efforts to help a woman stop smoking before conception are most successful if they involve a personal plan with concrete, repeated suggestions rather than just a cursory warning or pamphlet.[14]

Caffeine. Although the use of caffeine during pregnancy is controversial, researchers to date have not demonstrated a link between birth defects and caffeine. Several studies[18-20] have suggested that high daily caffeine intake may be associated with decreased fertility, increased spontaneous abortion, and low birth weight. Caffeine does decrease the absorption of calcium, zinc, potassium, magnesium, and vitamins B and C. Given the confusing data, it is probably best to limit preconception caffeine intake to approxi-

mately 300 mg/day. **Table 3** shows common sources of caffeine.

Immunizations

All women should be up to date on their immunization status. The rubella, measles, mumps, polio, and, varicella vaccines contain live attenuated viruses and so are contraindicated during pregnancy. Although it is recommended that three months elapse between these immunizations and conception, the potential risk to the fetus is small and thus far no cases of congenital fetal disease have been observed in women who have become pregnant within three months of vaccination for rubella. Official recommendations for varicella vaccination are still pending, but one is expected to be immunization of all women with no previous history of varicella.

Since 1988, the CDC has asked for universal screening for hepatitis B in all pregnant women. In 1991, active immunization of all infants born in the United States was begun. A primary means of preventing maternal and perinatal hepatitis B, however, is preconception immunization of all high-risk women (including women from Asia, Alaska, or the Pacific Islands; those with a history of chronic hepatitis, illicit drug use, multiple sexual partners, contact with blood or blood products, sexually transmitted diseases; and those with tattoos or who use or have used acupuncture).

Infections

Screening and treatment for chlamydia, gonorrhea, and syphilis should be done before pregnancy for both the woman and her partner. This would lessen the problems of impaired fertility, ectopic pregnancy, and congenital infections. For patients or their partners with herpes, precautions should be given regarding possible caesarian section if the woman has active lesions at the time of labor. Although there is no suspected teratogenicity associated with acyclovir, its use is recommended only for disseminated primary herpes simplex infection or maternal varicella pneumonia.[21]

In the United States, 7000 babies are born to HIV-infected mothers each year. Of these babies, 25% to 35% will be infected with HIV and die. Zidovudine (AZT) has been shown to be effective in decreasing the transmission rate of HIV by at least 67.5%, making the transmission rate about 8%.[22] All women should receive HIV counseling and testing before conception. Those who test positive can then make an informed decision regarding pregnancy and start AZT early in pregnancy.

Toxoplasmosis is a protozoan infection transmitted by eating uncooked meat infected with cysts or ingesting oocysts excreted in cat feces. It is estimated that one third of women have already had the infection and are in no danger of passing on congenital toxoplasmosis. Cytomegalovirus (CMV), a widespread disease of childhood, is another (viral) infection to which most women already have antibodies.[23] Both congenital conditions may cause damage to the central nervous system and eyes. CMV may also cause hearing loss. Although possibly not cost effective, testing for toxoplasma and CMV antibodies could target women who are not immune and therefore need counseling to decrease their risk of exposure to these infections.[23,24]

Table 3. Caffeine sources

Product	Approximate amount
coffee, drip (6 oz)	120 mg
coffee, instant (6 oz)	70 mg
coffee, decaf (6 oz)	4 mg
tea (6 oz)	40 mg
cocoa (8 oz)	20 mg
cola (12 oz)	45 mg
Excedrin, extra strength (1 tab)	65 mg
Anacin (1 tab)	32 mg
Vivarin (1 tab)	200 mg
Dexatrim	200 mg
Cafergot	100 mg
Darvon Compound-65	32 mg
over-the-counter cold remedies	20 mg
chocolate (1 oz)	15 mg

Medical conditions

The offspring of women with type I diabetes (insulin-dependent) have a congenital anomaly rate four times that of the general population. Preconception normalization of glycosylated hemoglobin, a marker of glycemic control during the previous four to six weeks, can reduce the congenital malformation rate to that of the normal population.[25] Maternal and perinatal morbidity are also decreased when maternal blood glucose levels are normalized.

Women who take anticonvulsants (phenytoin, valproic acid, carbamazapine, trimethadione, phenobarbital, primidone) should be advised of these drugs' teratogenicity. Because avoidance of seizures is crucial during pregnancy, it is prudent to discontinue as many medications as possible. A woman with idiopathic epilepsy and normal electroencephalograms should consider discontinuing all anticonvulsants if she has not had a seizure during the past two years.[26] Anticonvulsants can lower plasma folate levels and vice versa. It is therefore important to give supplemental folic acid and monitor plasma anticonvulsant levels periodically.[27]

Systemic lupus erythematosus is associated with a high rate of spontaneous abortion, as well as increased infertility, prematurity, and stillbirth. Preconception assessment of

renal function and antibody levels helps in predicting pregnancy outcome.[28] Pregnancy ideally should not be attempted until after six months of remission.

Women with coarctation of the aorta, renal insufficiency, cardiomyopathy, and pulmonary hypertension should be counseled about the inordinate maternal and fetal risk with pregnancy.[29]

Medications

In general, it is best to prescribe standard medications that have already been used extensively. Antibiotics such as the penicillins, erythromycins, and cephalosporins have been used safely in pregnancy.[30] Tetracycline causes discoloration of the deciduous teeth and streptomycin causes ototoxicity.[30] Newer medications usually have not had enough long-range testing done to be pronounced absolutely safe. The selective serotonin reuptake inhibitor (SSRI) antidepressants such as fluoxetine (Prozac)[31] have so far not been found to be teratogenic, but they are less than 10 years old. Studies are still ongoing. Some of the relatively newer medications found to be teratogenic are angiotensin-converting enzyme (ACE) inhibitors[30] and isotretinoin (Accutane).[30] Etretinate (Tegison), used for psoriasis, is stored in fat and teratogenic effects have been seen even up to one year after the last dose.[32] Other frequently prescribed medications that have been associated with teratogenic effects include methotrexate, androgenic steroids, diethylstilbestrol, and warfarin.[30]

With every medication, the risk should not exceed its benefit. For example, although anticonvulsants are definitely teratogenic, their benefits may outweigh their risks. Oral contraceptives, though not teratogenic, are never to be used during pregnancy because there is no benefit.

Many women use a vast variety of over-the-counter medications, none of which are curative. Chlorpheniramine, an antihistamine, has been used with safety during pregnancy.[30] Nonetheless, pregnant women should use the fewest medications possible for relief of their symptoms. Bed rest, hydration, and use of humidifiers should be stressed.

Health care providers may find computerized databases helpful in counseling pregnant patients. The Teratogen Information Service, TERIS, at the University of Washington in Seattle (206-543-2465), and the Reproductive Toxicology (REPROTOX) Center in Washington, DC (202-687-5137), offer summaries and individual case assessments done by academic teratologists on developmental effects of environmental agents and medications.

Laboratory tests

Women who expect to conceive during the next 12 months may receive essentially the same laboratory tests as those required for their initial prenatal visit. Depending on the individual and the obstetric population, tests can include:

- Papanicolaou smear
- sexually transmitted disease screen (gonorrhea, syphilis, chlamydia)
- blood tests
  - blood type, Rh
  - hemoglobin/hematocrit
  - rubella titer
  - hepatitis B virus screen
  - sickle cell screen
  - HIV screen (counsel and offer)
- urine for protein and sugar
- tuberculosis skin test, as indicated
- diabetes screen, as indicated
- other screens, as medically indicated

Although the following are not routinely recommended, consideration should be given to obtaining:

- phenylketonuria test
- hemoglobin electrophoresis
- Tay-Sachs screen
- parental karyotype
- toxoplasma titer
- CMV titer
- herpes simplex titer
- toxicology screen
- lead level

Environmental exposures

Poor reproductive outcomes such as infertility, spontaneous abortion, and birth defects have been associated with exposure to pesticides, cytotoxic drugs, anesthetic gases, organic solvents, lead, mercury, ethylene oxide, polychlorinated biphenyls, and vinyl chloride. Most of these agents are troublesome only in occupational "doses" and not in routine household use.[33] Under the Communication Standards of the Occupational Safety and Health Administration (OSHA), employers are required to post a "Material Safety Data Sheet" that lists all possible hazardous chemicals at their work site. Women in jobs which expose them to these agents need to use special precautions. General safety measures such as wearing protective clothing, gloves, and goggles, and working in a well-ventilated area are important precautions to take when working with chemicals. Each state has its own division of OSHA and Department of the Environment which may be a resource for chemical hazards. In addition, the on-line data bases mentioned above are very helpful. No prospective studies show conclusively that electromagnetic fields, microwaves, and video display terminals are harmful during pregnancy; data are controversial at best.

Lead is one teratogen that is found fairly commonly in the home. Homes built before 1978 may have lead paint that, if flaking, can go into the air or soil. Lead pipes or lead solder can contribute to lead in the drinking water. It is well known that lead poisoning is relatively dangerous in young children. Studies have implicated lead as a teratogen for minor malformations and developmental defects.[34] It has been hypothesized that lead already present in a woman's bones may become mobilized during pregnancy and reach the fetus. If this were true, high maternal preconception lead levels may make chelation therapy an option before pregnancy.[35] Further studies need to be done to assess this issue before any recommendation can be made.

Genetic counseling

Both the patient and her partner should be aware of their family medical histories. Chronic medical conditions, birth defects, and mental retardation that run in a family may signify an inherited disorder. New advances in genetic technology (e.g., polymerase chain reactions and DNA probes, prenatal ultrasonography, alpha-fetoprotein, amniocentesis, chorionic villus sampling) make the diagnosis of more and more genetic disorders possible. Carrier testing should be done on certain ethnic groups: Tay-Sachs disease for Ashkenazi Jews and French Canadians; sickle-cell anemia for blacks, South Americans, Indo-Pakistanis, and Middle Easterners; alpha-thalassemia for Southeast Asians and Africans; and beta-thalassemia for Mediterraneans, Indo-Pakistanis, Southeast Asians, and Africans. Every couple should also be questioned about consanguinity. Rare recessive orders are more common in couples related outside of marriage.

Reproductive history

As shown in **Table 1**, questions about previous obstetric history may suggest the need for specific preconception tests. Interventions for malformations of the uterus, autoimmune diseases, pelvic infections, diabetes, luteal phase deficiency, and other medical conditions may decrease the chance of future poor pregnancy outcomes.

Psychosocial issues

Stress, fatigue, long work hours, and prolonged standing have been shown to contribute to premature births.[36] Possible work hazards and hard physical labor should be considered.

Pregnancy and childbirth are the first major medical expenses most women face. These costs are unfortunately often underestimated. Many clinicians are unaware of how important a discussion of health insurance and financial issues can be.

It has been estimated that about 17% of obstetric patients are victims of domestic violence.[37] This makes domestic violence one of the most common problems of prenatal health—more common than diabetes, hypertension, and birth defects. In addition to intense emotional distress, abusive incidents may cause placental separation; perinatal hemorrhage; rupture of the uterus, liver, or spleen; and premature birth.[38] Information about available legal and community resources and a plan for dealing with the abusive partner should be formulated.

Male factors

Maternal stress seems to be a key factor in the incidence of infertility and premature birth. Men should be encouraged to participate in the preconception health assessment. Partner involvement adds much to the emotional well-being of the couple. Paternal promiscuity, bisexuality, or intravenous drug use puts the mother at risk for sexually transmitted diseases that may affect pregnancy. Men who work with toxic chemicals should take precautions not to expose their families with their contaminated clothing and shoes. Certain agents, such as chemotherapeutic drugs and radiation, can also have an effect on sperm number and morphology, usually making the male sterile. It remains unknown whether male exposure to toxic agents can be teratogenic through paternal germ cell mutation or seminal fluid transfer.[39]

Conclusion

Many women may be in contact with chemicals or medications that are harmful to a developing embryo or fetus. Since organogenesis ends by day 56 of pregnancy, pregnancy care should start before conception. Simple things like getting immunized for rubella or taking folic acid supplements can play a huge role in decreasing birth defects, if they are done before conception. The first prenatal visit, which traditionally is done well after a woman conceives, is really too late.

Although preconception care makes so much sense, it is difficult to enact. It is estimated that nearly 60% of pregnancies are unplanned.[40] Among teens, 95% of pregnancies are unplanned.[41] If we target only women who are planning to conceive, we are missing the majority of women who could have benefited from preconception care. To give preconcep-

Table 4. Preconception means planning FIRST

F	folic acid
I	immunize
R	review family genetic and ethnic history
S	stop smoking, drinking, drugs
T	teratogens and toxins

tion health a chance, we need to target all women of childbearing age. Every primary care practitioner should seize the opportunity to evaluate preconception risks for women at any medical visit and provide interventions as needed. Although birth defects will always be present due to factors beyond our control, we should do the utmost to minimize factors within our control. Even if a woman who received preconception counseling were never to conceive, she would still benefit from its basic concepts: medical screening; good nutrition; exercise; immunizations; stopping cigarettes, alcohol, and street drugs; and avoidance of toxins. The mnemonic in **Table 4** was devised to help physicians remember the essence of preconception health. Preconception health goes beyond healthier babies, it really emphasizes good health care for all women.

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HIGHLIGHTS OF THE 1946 MED CHI ANNUAL MEETING

The Medical and Chirurgical Faculty of Maryland will hold its meeting at the Belvedere Hotel, Baltimore, April 23-24, under the presidency of Dr. Thomas R. Chambers, Baltimore, who will discuss "Postwar Asthenia." Among the speakers will be:

- Dr. Nicholson J. Eastman, Baltimore, Median versus Lateral Episiotomy.
- Drs. John Mason Hundley Jr. and Beverly C. Compton, both of Baltimore, Carcinoma of the Cervix.
- Dr. John A.C. Colston, Baltimore, Carcinoma of the Prostate: Endocrine Therapy and the Radical Operation.
- Dr. Charles Bagley Jr., Baltimore, The Story of Cerebral Injuries.
- Dr. Alan C. Woods, Baltimore, Early Treatment of Eye Injuries.
- Dr. William J. Fulton, Detroit, Doctor in Industry.
- Dr. Wallace M. Yater, Washington, D.C., Coronary Artery Disease in Young Men—A Study of 400 Cases Proved at Necropsy.
- Dr. John T. King, Baltimore, Acute Cardiac Disorder Simulated by Pulmonary Embolism.
- Dr. Alfred Blalock, Baltimore, The Surgical Treatment of Pulmonary Stenosis.
- Dr. Arthur W. Allen, Boston, Venous Thrombosis and Pulmonary Embolism: A Comparative Study of Femoral Vein Interruption and Dicumarol Therapy.
- Dr. Harry M. Robinson Jr., Baltimore, Common Dermatologic Problems Presented by the Veteran.
- Dr. Henry M. Fox, Boston, Brief Psychotherapy Overseas and at Home.
- Dr. Maurice C. Pincoffs, Baltimore, Medical Problems in the Southwest Pacific Area.
- Dr. Harvey B. Stone, Baltimore, The Handling of Large Hemorrhages into the Bowel.
- Dr. George H. Yeager, Baltimore, Noninfective Gangrene Following Fracture of Lower Leg.
- Dr. Perrin H. Long, Baltimore, The Etiology and Epidemiology of Infectious Hepatitis.
- Dr. Harry C. Hull, Baltimore, Visualization of Amebic Abscesses of the Liver as an Aid to Therapy and Prognosis.
- Dr. Joseph E. Moore, Baltimore, Penicillin in the Treatment of Syphillis.
- Dr. Theodore E. Woodward, Baltimore, Chemotherapy in the Rickettsial Diseases, with Special Reference to Para-Aminobenzoic Acid.

Source: *JAMA* 1946;130:1040.

Gene therapy for cystic fibrosis: a potential cure

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ABSTRACT: *Cystic fibrosis is a lethal autosomal recessive disorder. In 1989, the cystic fibrosis gene was isolated on chromosome 7. Positional cloning, linkage analysis, saturation cloning, and chromosome jumping enabled the isolation and cloning of the gene that encodes the cystic fibrosis transmembrane conductance regulator. Current work focuses on the safe, efficient delivery of a functional cystic fibrosis transmembrane conductance gene to patients who are afflicted with cystic fibrosis and the expression of the gene in somatic cells to correct the genetic defect and restore chloride channel function. It is hoped that successful gene therapy will be a feasible and cost-efficient approach that will lead to a cure.*

Cystic fibrosis is an autosomal recessive genetic disorder that affects more than 50,000 individuals worldwide. It is characterized by hyperaccumulation of mucus in the respiratory and gastrointestinal tracts, pancreatic insufficiency, male sterility, and elevated salt levels in the sweat. The destruction of the lung is a major cause of morbidity. The median survival time of patients with cystic fibrosis is now about 29 years.

During the past decade, research has provided some fascinating insights into our understanding of the genetic and molecular basis of cystic fibrosis. Abnormal electrolyte transport across epithelial tissues was initially considered to be the physiologic disturbance in cystic fibrosis, which led to the elucidation of a pathway in which epithelial chloride transport is normally elicited in response to beta adrenergic stimuli and involves second messenger cyclic adenoside monophosphatase (cAMP) to activate protein kinase A. Contemporary advances in genetic engineer-

ing defined the location of the cystic fibrosis gene and facilitated identification and cloning of the gene that encodes the cystic fibrosis transmembrane conductance regulator. The cloned cystic fibrosis transmembrane conductance regulator gene was used as a powerful tool which determined that this protein was in fact a cAMP-dependent chloride conducting channel itself.[1]

Although a single mutation accounts for 70% of all cystic fibrosis mutations, there are more than 200 other lesions within the gene that can also cause the disease. Identification of these mutations has enabled further understanding of the normal function of cystic fibrosis transmembrane regulator by studying these variants in heterologous expression systems. From a clinical perspective, understanding how disease-causing mutations impair function may culminate in pharmacologic approaches to reverse the damage. Treating the disease at the level of the gene appears to be a realistic goal.

Landmarks in the isolation of the cystic fibrosis gene

Positional cloning. This technique involves isolating a gene based on its genomic position. It overcomes the limitation of cloning by a functional approach in diseases in which a feasible assay to screen candidate genes is absent. Since chromosomal rearrangements do not occur in cystic fibrosis, linkage analysis was used.[2]

Linkage analysis. The proximity of two genetic loci is determined by measuring the frequency with which they cosegregate. Once linkage of the disease gene to a cloned, genetic marker is established, the marker can be used as a starting point to approach the diseased gene. Among polymorphic markers, the random DNA probe D0CR-917 cosegregated with cystic fibrosis and could be mapped to chromosome 7. Subsequent testing of other chromosome 7 markers revealed the *met* protooncogene and the DNA probe D7S8, which practically flanked the cystic fibrosis locus.[3]

Newer strategies. The proximity of markers linked to the gene is currently enhanced by saturation cloning, in which the region is saturated by new markers and new ones are identified that are closer to the cystic fibrosis gene than existing markers. Other strategies include physical mapping, in which long-range restriction maps define the distance of the interval in which the cystic fibrosis gene must be located. The process is expedited by chromosome jumping, which spans the region in fewer steps.

Discovery of the cystic fibrosis gene

Two hundred forty kilobases (kb) of genomic DNA were traversed, cloned, and sorted. A genomic clone containing an H*pall* tiny fragments (HTF) island was isolated. This hypomethylated CpG-dinucleotide pair-rich sequence was located on a 4.3-kb *Eco*RI fragment. The fragment was subcloned and used to screen both zoo and Northern blots and complementary DNA (cDNA) libraries. A single clone of approximately 900 base pairs was isolated from a sweat gland library. This clone detected a transcript of approximately 6.5 kb in RNA from pancreas, colon, lung, liver, nasal polyp, and sweat gland consistent with the pathology of cystic fibrosis. A single open reading frame without a termination codon, it was used to isolate additional codons until the entire cDNA including the 3' poly(A) addition site was obtained. The predicted protein from this cDNA, termed *cystic fibrosis transmembrane regulator,* had 1480 amino acids.[3]

Proof of correct cloning

Four criteria should be satisfied to prove the gene was cloned correctly:

- ***The gene must map to the same position in the genome as the disease.*** Linkage analysis and physical mapping placed the disease locus in band q31 of chromosome 7, within an interval of about 900 kb.
- ***The gene should be expressed in the affected tissues, indicating the defect is intrinsic.*** The cystic fibrosis phenotype is an abnormal or absent chloride conductance across apical membranes in certain epithelial cells. Proper tissue distribution was confirmed first with the isolation of the candidate gene from a sweat gland cDNA library and second when probing RNA blots with sequences from a candidate cystic fibrosis gene showed a disease-specific tissue distribution profile.
- ***Cystic fibrosis alleles of the gene must contain disease-causing alterations or mutations not found in normal alleles.*** cDNA sequences between clones isolated from sweat gland libraries constructed from the RNA of normal individuals and a cystic fibrosis patient were compared. When sequenced, the cystic fibrosis clones were found to be missing three nucleotides that corresponded to the deletion of a single amino acid, phenylalanine, at position 508 in the protein product of the gene. Neutral polymorphism or a cloning artifact were ruled out because of the absence of the mutation in unaffected individuals.
- ***A normal copy of the gene introduced into the cystic fibrosis cells should transform the cells into a nondisease phenotype.*** The genomic size (250 kb) of the cystic fibrosis transmembrane regulator gene was a major technical hurdle in its introduction into the cells of interest. After a cystic fibrosis airway epithelial line was transfected with a plasmid in which the cDNA is driven by a prokaryotic promoter, the cells were infected with the

vaccinia virus containing RNA polymerase gene to activate this promoter and allow a high level of expression of the cystic fibrosis transmembrane regulator cDNA. Normal chloride regulation was conferred to the cystic fibrosis cells, demonstrating that mutations are responsible for cystic fibrosis.

Treatment possibilities

To correct the genetic defect and restore chloride-channel function, scientists hope to treat those afflicted with cystic fibrosis by delivering a functional cystic fibrosis transmembrane regulator gene that would be expressed in somatic cells. Current treatment strategies for cystic fibrosis (e.g., antibiotics, chest physiotherapy) are directed mainly at alleviating symptoms. Transfection of a cystic fibrosis transmembrane regulator cDNA can restore chloride conductance to cystic fibrosis epithelial cells in culture. This suggests that similar expression in the airways of cystic fibrosis patients could represent a strategy for treatment. Because cystic fibrosis is a recessive disease with completely normal heterozygotes, inserting a single copy of the gene in any location of the genome should suffice for phenotypic correction of the recipient cell. Gradual lung destruction is the major cause of morbidity and mortality. Thus, the relatively accessible airway and potential use of aerosol delivery systems makes gene therapy attractive. Current work focuses on developing optimal gene delivery systems as well as animal models for testing the therapeutic approaches to cystic fibrosis.

Primary goals of cystic fibrosis gene therapy

Design a safe, efficient way to introduce the cloned gene into cells. Current gene delivery systems are broadly based on either viral vector routes or nonviral liposomal routes. Although efficient systems have been documented in animal models, their duration of expression (which would affect the frequency of administration) has not been sufficiently tested. There are different viral vector and vector-free systems that could be used to deliver the wild-type gene to the airway.[4]

Determine if the gene must be expressed in the affected tissue or if release of the protein product at another site would be efficacious. Cystic fibrosis transmembrane regulator expression is higher in submucosal glands. By correcting the chloride channel defect in airway cells—the hallmark of cystic fibrosis—without altering the submucosal glands, the clinical results may still be beneficial.

Define the form of existence of the gene to optimize its function at the target site. The regulatory element of cystic fibrosis transmembrane regulator expression in cells in which it is introduced (i.e., directing transcription at appropriate levels and in appropriate cells) remains to be determined with ongoing clinical trials.

There are several problems and controversies associated with gene therapy for cystic fibrosis patients. Although some studies indicate that correcting as little as 6% of the cells can produce normal physiologic function, the proportion of responsible cell types that must be corrected to achieve clinical benefit remains unknown. The overexpression of cystic fibrosis transmembrane regulator may also cause toxicity by seriously altering cellular homeostasis. Furthermore, the expression of cystic fibrosis transmembrane regulator gene in airway cells may not be permanent unless vectors can efficiently integrate the cystic fibrosis transmembrane regulator gene into the airway "stem cells." There is a possibility that the host immune system may respond to the vector or wild-type cystic fibrosis transmembrane regulator. The potential effect of repetitive administrations on the immune responses against the delivery system (e.g., the adenovirus) must be considered; it is possible to contaminate inadvertently the environment with aerosol vectors and accidental gene transfer into the germ line.[2] Ethical issues to be addressed include which patients to treat, at what stage of the disease to treat, who authorizes the treatment in a minor, and cost effectiveness.

Conclusions

Considering the global research effort, it is likely that within the next 10 years an effective cystic fibrosis gene therapy will be available to complement existing treatment.[5] Genetic counseling and screening will still play an important role, but gene therapy could offer an alternative for carrier parents who choose to have children. It remains to be seen whether gene therapy will merely reduce the burden of continuously developing newer antimicrobial drugs for emerging resistant strains or eventually revolutionize the approach and become the mainstay therapy. We hope that gene therapy would be a feasible and better form of treatment that may eventually lead to a cure for this devastating disease in the young.

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Brief report: evaluation of fecal incontinence using rectal ultrasound

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Fecal incontinence and soiling are frequent, incapacitating conditions among elderly patients. Recent advances in the use of anorectal sonography have resulted in a better understanding of the dynamics of the anorectal area and shown that sonography is reliable when compared to electromyography (EMG) and manometry.[1,2] The use of diagnostic studies such as ultrasound has led to better understanding of the factors leading to incontinence and thus to better selection of treatment modalities.

According to Hoffman and colleagues,[3] fecal incontinence is divided into three categories: complete incontinence, partial incontinence, and seepage with soiling. The patient with seepage and/or soiling is usually an elderly patient who is incontinent of gas and liquid stool. Pruritus ani may be associated with seepage and soiling as the sole symptom of incontinence. Although incontinence may have a variety of causes, it is usually associated with a sphincter defect. Fecal seepage and soiling, however, seem to be associated with changes other than sphincter function.

Favetta[4] has evaluated rectal ultrasound and found that real time sonography allows for muscle studies equal to or better than EMG-manometry. Bartram[2] also has found this method to be superior in evaluating anal sphincter defects. Sonography may be particularly useful in that it provides a visualization of the muscular activity as the muscle contracts and relaxes, thereby showing sphincter defects that can be documented with pictorial representation. Following is a preliminary report on the clinical use of rectal sonography in the evaluation of patients with anorectal incontinence. The experience provides a baseline for examining the perianal area and an understanding of the anatomy as viewed by transrectal ultrasound.

Patients and methods

The current report describes results of rectal sonographic examination of 189 patients with rectal pain, incontinence, rectal or anorectal masses, or fistula-in-ano. Forty-three patients with some type of incontinence were examined. In 13 (3 men, 10 women) the chief complaint was complete incontinence; in 14 (2 men, 12 women) it was partial incontinence; and in 16 (5 men, 11 women) it was fecal soiling or seepage. The patients' average age was 54 (range, 20 to 85).

The examination was performed with the patient in the left lateral decubitus position. A 6.5 Mhz anorectal probe, placed parallel to the anal verge, was used to examine all four quadrants of the rectal ampulla. After initial sonographic evaluation of the anal sphincter in the resting state, the patient was asked to contract the sphincter. With the sonographic probe in each quadrant, the dynamics of the sphincter can be easily visualized and any anatomic or motion defects can be recognized and documented. Appropriate photographic documentation was obtained in each case.

Results

Of the 13 patients with complete incontinence, seven were found to have severe defects in the anal sphincter mechanism secondary to prior surgery or childbirth. The other six patients appeared to have very lax sphincters that moved poorly with attempts at contraction.

Partial incontinence was relatively difficult to evaluate. Nine of the 14 patients were found to have a sphincter defect. Of these, seven had undergone more than 10 years previously a left lateral sphincterotomy for fissure-in-ano. The surgery was believed to have contributed to the patients' partial incontinence. Six other patients had had extensive fistulectomies, resulting in very wide scars that certainly contributed to the patients' incontinence and to some defect in the musculature as seen on ultrasonography.

In the patients who had fecal soiling and staining, the sphincter mechanism appeared to be working well, although manometry did show some increase in the thickness of the internal sphincter.

Discussion

For patients who have either partial or complete incontinence and muscle defects demonstrated by ultrasonography, surgery may be expected to result in improvement. For patients who have fecal soiling or staining, however, etiology is more difficult to define. These patients are often thought to have true sphincter defects for which a variety of surgical procedures may be recommended. With the use of ultrasonography, a lack of muscle defect can be easily ascertained and treatment methods other than surgical interventions can be recommended (e.g., biofeedback, use of bulking agents, retraining to decrease the time between the sensation to have a bowel movement and the actual threshold to produce a bowel movement).

Rectal ultrasonography allows a dynamic evaluation of the anal sphincter. Although digital examination may suggest a problem when there is a muscle defect, it is inadequate to evaluate soiling. Unlike EMG and manometry, ultrasonography involves neither invasion of the anus nor the pain often associated with the needle placement for EMG studies. Anorectal ultrasound may add greatly to the diagnostic acumen of the clinician in treating patients with fecal incontinence and in defining the type of incontinence that may be present, resulting in more appropriate treatment recommendations.

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"Doctors must remain responsible to their patients before all else. Once physicians become instruments of social control or prey to societal factions—no matter how well intentioned—they act as consulting-room collaborators, threatening rather than preserving their patients' trust."

Lancet 1995;346:1173.

CASE RECORDS

of the University of Maryland and Baltimore VA Medical Centers

A 30-year-old man with fever, diarrhea, and rash

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R. Michael Benitez, M.D., editor

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Presentation of case

A 30-year-old day-care center worker with no significant past medical history presented to the emergency room complaining of nausea, odyno-phagia, and diarrhea with crampy abdominal pain of three days' duration. He had no hematemesis or tenesmus. His diarrhea consisted of 6 to 7 watery stools daily that were not associated with meals. He also noted small, itchy spots on his face, chest, and arms that appeared about the same time as the diarrhea. The patient reported having had night sweats for the past week and generalized malaise and fatigue. He had no cardiac, respiratory, or other complaints. He denied taking any medications and reported no known allergies. He stated that he was bisexual, but denied any sexual contact during the past year. He also denied intravenous drug abuse and use of alcohol or tobacco.

Table 1. Laboratory values

Hematologic	
• white blood cell count	3.7 x 10^9/L
• hemoglobin	102 g/L
• hematocrit	0.45
• platelet count	121 x 10^9/L
• segmented neutrophils	66%
• lymphocytes	21%
• band form	4%
Chemical	
• sodium	136 mmol/L
• potassium	4.8 mmol/L
• chloride	102 mmol/L
• carbon dioxide	24 mmol/L
• urea nitrogen	6.5 mmol/L
• creatinine	100 µmol/L
• glucose	6.1 mmol/L
• aspartate aminotransferase	22 U/L
• alanine aminotransferase	30 U/L
• lactate dehydrogenase	126 U/L
• calcium	2.47mmol/L
• total bilirubin	14 µmol/L

Physical examination. The patient was a well-appearing black man in no distress. Temperature was 103° F, pulse rate was 120, respiratory rate was 18, and blood pressure was 135/78 mm/Hg. The patient had anicteric sclera; his pupils were equal, round, regular, and reacted to light and accommodation; and his extraocular muscles were intact. His oropharynx and tonsils were clear, with no exudates or discharge. He had full range of neck motion with no pain and there was no jugular vein distension. There was 1 nontender 2 x 1 cm node in the right posterior cervical chain and 1 nontender 1 x 1 cm node in the left axilla. Examination of the lungs, heart, abdomen, and extremities showed no abnormalities. The patient's neurologic signs were grossly intact.

There were diffuse scaling lesions on the patient's face, trunk, arms, and legs, but not on the palms or soles. The lesions were erythematous macules, approximately 0.5 cm in diameter. There were no papules or signs of superinfection.

Hematologic and laboratory results are shown in **Table 1**. Stool studies were negative for fecal fat, ova, parasites, and red and white blood cells. A chest roentgenogram was normal.

The patient was admitted to the hospital and observed. No antibiotics were given and blood cultures were negative. Within five days the patient had defervesced and his rash and diar-

rhea had resolved. A diagnostic test was performed during his stay.

Differential diagnosis

I must confess that on first reading, I found this case totally mystifying because it did not call to mind any prior case of a similar nature. In fact, it was my secretary who first suggested to me what I believe is the correct diagnosis; one, it appears, that was immediately obvious to everyone but today's discussant.

Such lucky revelations notwithstanding, this case presents a real diagnostic challenge. I will discuss in depth the disease process I believe to be responsible for the patient's signs and symptoms. First, however, I would like to review a problem-solving technique I have found useful in developing a differential diagnosis in difficult cases such as this.

The initial step is to attempt to reduce the case presentation to its essential elements. I have endeavored to do so in **Table 2**. The importance of such a list of key elements is that it forces one to focus on the specific features of the illness that must be explained by the diagnosis ultimately chosen as a presumptive explanation for the illness. One should strive to identify a single diagnosis that accounts for all the features of the illness. However, one must acknowledge that in some patients, more than one disease process may be active simultaneously.

In this particular patient, the diagnosis (perhaps diagnoses) we choose must account for an acute, but self-limited febrile illness characterized by odynophagia, diarrhea, diffuse rash, modest lymphadenopathy, and borderline leukopenia. The epidemiologic history is noteworthy because the patient's sexual orientation raises the specter of human immunodeficiency virus (HIV) infection and perhaps AIDS. In the latter instance, secondary diagnoses will most likely be required to explain the fever, rash, and diarrhea because AIDS is not a febrile disorder and the presence of diarrhea and cutaneous eruptions in AIDS patients usually implies a secondary disorder. The fact that the patient works in a day-care center is noteworthy because it places the patient at risk of infection with gastrointestinal pathogens such as shigella and enteroinvasive *Escherichia coli*.

The next step in the problem-solving technique is to decide whether the disease process is most likely systemic or focal. If, based on the key elements of the illness, it appears that the disease is focal, one should decide which organ (or organ system) is the site of the problem. In view of this patient's fever, rash, diarrhea, and lymphadenopathy, indicating involvement of at least three organ systems, I think there can be little doubt that we are dealing with a systemic disorder.

Table 2. Key elements

- acute febrile illness in a 30-year-old
- odynophagia
- diarrhea
- scattered lymphadenopathy
- rash
- leukopenia
- bisexual/day-care worker

Finally, to complete the problem-solving exercise, one considers specific diagnoses by disease category (**Table 3**), with the key elements of the case in mind. In this case, there is a strong probability that we are dealing with a systemic disease.

As one develops a list of differential diagnoses, I think it is important to be realistic and parsimonious. Most of the diagnostic problems that confront us ultimately represent common illnesses. Thus, I would not spend a great deal of time worrying about exotic diagnoses as I work my way through the disease categories.

With regard to "toxic/metabolic" disorders, this patient's signs and symptoms might be explained by a drug-induced vasculitis. However, he was not taking any medication at the time of his illness. A systemic vasculitis, such as systemic lupus erythematosus, I suppose might also produce a disorder such as this. However, it would be distinctly uncommon, in my experience, for an autoimmune vasculitis to begin so abruptly, spare the kidneys, and then resolve spontaneously. Therefore, I am inclined to believe that this patient's disease is not one of the "collagen/vascular" disorders. I can think of no "malignant," "degenerative," "congenital," or "traumatic" disorder that presents in this fashion. Although

Table 3. Disease categories

- toxic/metabolic
- collagen/vascular
- cancer
- congenital
- degenerative
- trauma
- idiopathic
- infectious
  - bacterial
  - fungal
  - mycobacterial
  - spirochetal
  - rickettsial
  - mycoplasma/chlamydia
  - viral

sarcoidosis can occasionally produce bizarre clinical manifestations, in my experience, neither it nor any of the other "idiopathic" disorders ever produces a clinical disorder such as the one exhibited by this patient.

This leaves us with the final diagnostic category: "infection." I find it useful in considering this category to think in terms of the different groups of pathogenic microorganisms that infect humans (**Table 3**). Of the "bacterial" pathogens worth considering in this case, I would point to Campylobacter, Shigella, Salmonella (including *S. typhi*), and enteroinvasive *E. coli*. These are important pathogens to consider because they cause febrile gastroenteritis. Nevertheless, if one of these pathogenic bacteria were responsible for this patient's gastroenteritis, I would have expected to have seen polymorphonuclear leukocytes and/or erythrocytes in the stool. There were no such cells. In addition, although rose spots are occasionally seen in typhoid fever, none of these bacterial gastroenteritides exhibits the kind of rash described in this patient.

Table 4. Signs and symptoms of primary HIV infection

Sign or symptom	Frequency (%)
• fever	97
• adenopathy	77
• pharyngitis	73
• rash	70
• myalgia or arthralgia	58
• thrombocytopenia	51
• leukopenia	38
• diarrhea	33
• headache	30
• elevated ALT	23
• nausea or vomiting	20
• hepatosplenomegaly	17
• oral thrush	10
• encephalopathy	8
• neuropathy	8

Also reported: esophageal ulceration, esophageal candidiasis vasculitis nephritis, rhabdomyolysis with acute renal failure, hypoxemia, fatal aplastic anemia.[2]

There are a number of viruses that cause human gastroenteritis. The Norwalk agent and rotaviruses are examples. Although the absence of inflammatory cells and erythrocytes in stool is typical, diarrhea caused by these viruses is not normally associated with fever or rash. Enteroviruses cause both fever and rash. However, contrary to their name (which signifies their portal of entry), enteroviruses are not an important cause of gastroenteritis.

I can think of no "fungal" or "mycobacterial" infection that causes an illness similar to the one exhibited by this patient. Secondary syphilis might explain the rash, but would not be a likely explanation for the fever or diarrhea. A rickettsial infection might explain the rash and fever, but would be a distinctly uncommon cause for the diarrhea. Protozoa, such as Cryptosporidium, Microsporida, and Cyclospora, might account for the diarrhea, but would only be likely infections if the patient had underlying AIDS and would not explain either the fever or the rash. Infections caused by Mycoplasma and Chlamydia can be extremely protean in their manifestations, but have a decided predilection for the respiratory tract. This patient had no respiratory symptoms.

Of the diseases that occurred to me as I worked my way through the various disease categories, the only one that might account



Figure 1. An example of one kind of rash seen in patients with primary HIV infection. The rash is characteristically erythematous, nonpruritic, and maculopapular. However, cutaneous eruptions may be roseola-like, urticarial, vesicular, exanthematous, or desquamative

From: Farrar E. *Infectious Diseases Text and Color Atlas*. 2nd ed. London, UK: Grover Medical Publishing; 1991. *Used with permission.*

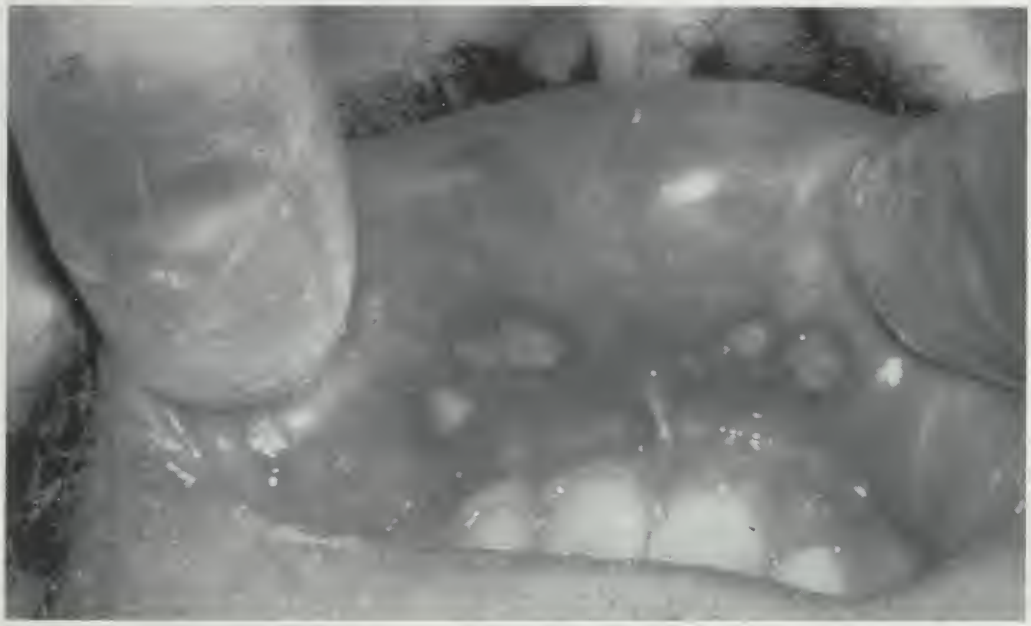


Figure 2. Mucosal ulcerations in a patient with primary HIV infection. Electron microscopy shows viral particles resembling HIV in specimens of ulcer tissue.

From: Farrar E. *Infectious Diseases Text and Color Atlas*. 2nd ed. London, UK: Grover Medical Publishing; 1991. *Used with permission.*

for all the patient's signs and symptoms as a single diagnosis was primary HIV infection. This diagnosis was first suggested to me by our chief resident, who told me that she had seen several similar cases during her residency. Then, as she handed me the first typewritten draft of Table 2, one of the medical service secretaries said, "This man sounds like he has AIDS."

Primary HIV infections are symptomatic in 53% to 93% of patients who are infected with the virus.[1] Symptoms in such patients characteristically appear 2 to 4 weeks after infection (incubation period) and last 1 to 2 weeks before resolving spontaneously. Thus, if this patient's illness were due to primary HIV infection, the event responsible for his HIV infection most likely occurred during the month prior to the onset of his symptoms.

The clinical manifestations of primary HIV infection are listed in **Table 4**. As noted, fever, pharyngitis, diarrhea, rash, lymphadenopathy, and leukopenia (in short, all the key elements of this case) are common. The rash is frequently diffuse (as in this case) and pleomorphic (**Figure 1**). Mucocutaneous ulcerations (a potential cause of odynophagia) have been reported to occur on the buccal mucosa, gingiva or palate, esophagus, anus, and penis (**Figure 2**). Several diseases—many of which I have already mentioned—can mimic primary HIV infection (**Table 5**). Of these, infectious mononucleosis is the most important. Nevertheless, several features of primary HIV infection readily distinguish it from classic infectious mononucleosis (**Table 6**).

Table 5. Major differential diagnosis of primary HIV infection

- Epstein-Barr virus mononucleosis
- cytomegalovirus mononucleosis
- toxoplasmosis
- rubella
- viral hepatitis
- secondary syphilis
- disseminated gonococcal infection
- primary herpes simplex virus infection
- other viral infection
- drug reaction

Table 6. Differential clinical features of Epstein-Barr virus (EBV) mononucleosis and primary HIV infection[3]

Feature	EBV	HIV
• Onset	insidious	acute
• Oral signs	▫ marked tonsillar hypertrophy	▫ little or no tonsillar hypertrophy
	▫ enanthema on border of hard and soft palate	▫ enanthema on hard palate
	▫ exudative pharyngitis common	▫ exudative pharyngitis uncommon
	▫ no oral ulcers	▫ oral ulcers common
• Rash	rare	common
• Diarrhea	not typical	seen in one third of cases
• Atypical lymphocytosis	80% to 90%	< 50%
• Heterophil antibodies	> 90%	rare

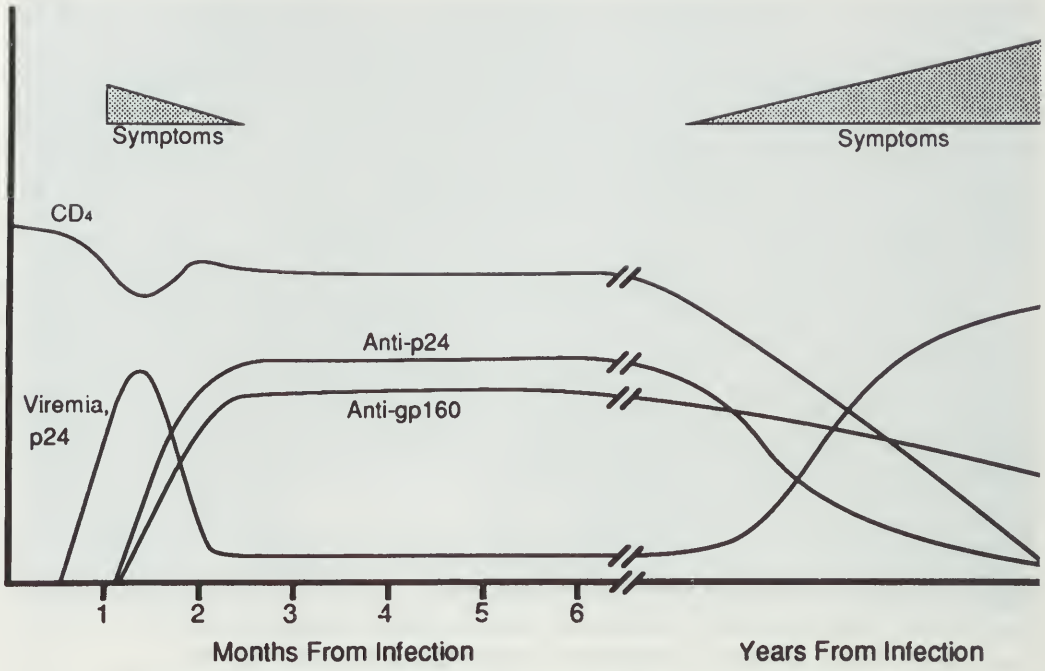


Figure 3. Schematic representation of the natural history of HIV-1 infection.

From: Clark SJ, Saag MS, Decker, WD, Campbell-Hill S, Roberson JL, Veldkamp PJ, et al. High titers of cytopathic virus in plasma of patients with symptomatic primary HIV-1 infection. *N Engl J Med* 1991;324:954–960. *Used with permission.*

Primary HIV infection is diagnosed by demonstrating the presence of p24 antigen in either serum or cerebrospinal fluid (CSF) or by isolating HIV from blood, CSF, or some other clinical specimen. Because *gag* (p24) and *env* (gp160) protein seroconversion generally does not take place until later in the course of the illness (**Figure 3**), HIV antibody determinations cannot be relied upon to diagnose primary HIV infections.

Treatment of primary HIV infection continues to be experimental. Although nucleoside analogues such as zidovudine (AZT) have produced modest beneficial effects in primary retroviral infections in experimental animals, their value in the treatment of human primary HIV infection has yet to be determined.

Clinical diagnosis: Primary HIV infection. I suspect the diagnosis was established by demonstrating p24 antigen in the patient's serum.

Final diagnosis: HIV infection.

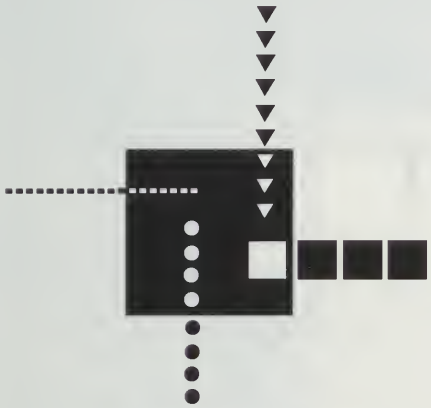
Following the patient's admission to the hospital, blood cultures were obtained that yielded no growth during the course of his hospital stay. A 5-TU PPD test yielded no cutaneous response at 48 and 72 hours, although the patient did develop a cutaneous response to similar testing with mumps antigen. A rapid plasma reagin test for syphilis was performed; the result was negative. There was no serologic evidence of current infection with cytomegalovirus or Epstein-Barr virus.

An enzyme-linked immunosorbent assay (ELISA) for HIV was negative. Because of continued concern about the possibility of primary HIV infection, however, the patient's serum was tested for the presence of the p24 antigen of the HIV virus. The result was positive. The patient was subsequently followed in the infectious disease clinic. Eight weeks later, another ELISA test was positive for HIV.

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3. Tindall B, Cooper DA. Primary HIV infection: host responses and intervention strategies [editorial]. *AIDS* 1991;5:1–14. ■

Organized Medical Staff Section



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Twenty Seventh Assembly Meeting
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COMING OUT OF THE DARK

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Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

Dan Morhaim, M.D.: reflections of a state representative after two terms

Dan K. Morhaim, M.D., is the state delegate to the Maryland House of Delegates from the 11th district in Baltimore County (Pikesville, Owings Mills, Reisterstown, Glyndon, Lutherville, Greenspring Valley). This month, as he completes his second legislative session, he talks about how he's been able to make a difference to the citizens of Maryland through past, present, and future legislative efforts.



Dan K. Morhaim, M.D.
Photo: Bill Schilling

Although he feels that he hit the ground running this year, the federal budget impasse has definitely stalled important state decisions, says Morhaim. The state's largest single budget item, Medicaid, is dependent on the type, as well as the amount of, federal funds. In order to enact guidelines for the use of the monies, for example, the state's legislators need to know whether they will come in the form of block grants or entitlements.

As one of only two physician members of the legislature, Morhaim prefers to use his health care background (he is board certified in both internal medicine and emergency medicine) as a resource for his fellow representatives to help clarify complex issues. He purposely avoids pegging himself as the health care knowledge guru of the legislature, but is happy to lend his expertise when called upon.

"You can't just show up and say, 'Here I am, I'm a doctor, I'm outraged by what's going on in health care and I'm going to go to the legislature,'" he explains.

His participation on the Environmental Matters Committee led to an appointment on the Joint Subcommittee on Health. These committees provide a forum whereby Morhaim occasionally is able to further health care debates by serving as a patient advocate.

"At one of our committee hearings, the insurance companies and the hospitals were rattling on about 'third-party this' and 'third-party that,'" he says. "So I asked them, well, you're talking a lot about third parties. Can you please clarify for the committee who the first two parties are? It really just opened up everyone's eyes to see how far the wrong way the debate was going. What happened to the patient?"

Morhaim pauses and reflects on the core purpose of health care.

"In the end, a managed care company doesn't provide care—it's the individual provider who takes care of the patient," he says earnestly. "Obviously, I'm well aware that there's a huge technological and financial industry behind it. But the widget that holds this whole thing together is the patient-provider relationship."

At least once Morhaim's background in health care prevented, rather than facilitated, his involvement in the legislature. Because he practices emergency medicine for most of the year when the legislature is not in session, he excused himself from voting on a crucial piece of health care legislation because of a conflict of interest. The bill called for managed care companies to shoulder the costs of nonemergent emergency room visits of their enrolled patients. It passed the Senate unanimously, passed the House overwhelmingly, yet was ultimately vetoed by Governor Glendening. Excusing himself from voting, Morhaim says, didn't preclude his forming an opinion about the issue.

"I do strongly believe that managed care companies need to pay for their patients who show up in the ER because we (emergency room physicians and nurses) are legally obligated to take care of them. Or the companies should educate their patients and provide alternative care networks so their patients won't show up in the ER when they shouldn't. Now, they (managed care companies) don't have to pay for the services their patients receive, nor do they have to provide for the services."

About 3,000 bills are submitted annually to the legislative session, which runs from approximately January 10 to April 8, Morhaim said. Roughly 20% of those make it out of committee. Most of those are signed into law. Ninety days might not seem like enough time to conduct state business, but he fears that if it were longer, the legislature would consist of politicians, not citizens of Maryland with "regular jobs" for the rest of the year.

Morhaim spoke at length about two of his nonhealth care initiatives in the agricultural and funeral industries. He wants to expand the state's 20-member agriculture commission to increase its representativeness of the scope of Maryland's largest industry.

"We want to create four more positions to help Maryland use our land better and decrease the use of pesticides," says Morhaim. He cited sector examples of organic farming and viti-culture that aren't represented on the current board.

His interest in the funeral industry, he said, was fueled by the knowledge that the average funeral costs a whopping $7,500 and that citizens historically have complained about hidden charges and overpriced caskets sold to them during a time of anguish and bereavement. Morhaim pledges to lead efforts that will better standardize the industry and make it more consumer-friendly.

"The traditional American family has three major purchases: a house, a car, and a funeral." He feels that a funeral shouldn't be a high-ticket family item, so he undertook an investigation of the laws governing funerals. The investigation revealed legal inconsistencies, loopholes, and regulation that was "all over the map." Morhaim first intends to create an independent task force to take an in-depth look at the issue and has sponsored bipartisan bills directed at a reform initiative.

"Everybody eats, everybody dies," he says, obviously pleased with his efforts.

Throughout his term, Morhaim says, he maintains an acute sense of responsibility to the citizens of Maryland and plans on running for re-election in November 1998. And at this stage, he won't admit to having higher political aspirations. His legislative activities, however, clearly are thoughtfully programmed to keeping that door wide open. He has selected important issues through which he can make a significant contribution. They are also items that are relatively devoid of controversy, except for resistance by would-be profiteers.

And he hasn't yet felt the need to resort to the services of a spin doctor. During his door-to-door campaign, he says, he didn't try to canvas potential votes with sophisticated double-talk.

"People see through phoniness right away," he said. "I'd rather be unvarnished and let them choose whether or not to vote for me." He cites his prochoice stance as an example. "I talked to thousands of people. I'd be asked, 'What's your opinion on abortion?' I'd tell them, and then they'd say they were prolife but that they appreciated my answering the question honestly."

Morhaim's political savvy is revealed by the broad-based appeal and applicability of his pet projects, by the careful side-stepping of conflict-of-interest issues on which a competitor might capitalize, and by his jovial, optimistic manner about the role that government can play to enhance the lives of its citizens.

"I'm still awe-inspired by walking into the state capital building and taking my seat on the floor of the House," he admits. "I'm not yet cynical about being a representative. I feel real good about it."

PRERNA MONA KHANNA, M.D.
Dr. Khanna is a resident in preventive medicine at The Johns Hopkins University School of Hygiene and Public Health. ■

The Study of the Federation: preparing for a Maryland dialogue

At the January 1996 meeting of the Med Chi House of Delegates, a resolution was adopted calling for a discussion at the annual meeting in April of the AMA's revised "Study of the Federation" report. What once might have been thought an unusual prioritization of an AMA report at a state meeting is not unique to the Study, nor to Maryland. State and local medical societies nationwide are bracing themselves with debate and dialogue for the inevitable challenges issued by the Study and its recommendations.

The Study is a two-year analysis on how best to restructure the governance of organized medicine's largest representative body, the AMA. This in order to better respond to issues of diversification and political, economic, social, competitive, regulatory, and technological evolution engulfing the medical profession. It is, in essence, an attempt to inject the tactics and implementation of longtime corporate practices into an industry once thought of as shielded from even the most commonplace concerns of businesses. It is a landmark project in the history of organized medicine.

As members of the Study's project team and consortium, the two groups charged with developing the blueprint for the future, we shared in the deliberations that led to a number of revised recommendations. The most important ones are that specialty society representation be increased incrementally without decreasing state society representation, and that we explore ways to recruit more successfully the active participation of junior physicians, international medical graduates, women, minorities, and physicians practicing in different integrated delivery systems.

The motivation behind this effort is one of viability. With the increasing fragmentation of today's healers by special interest and specialty, professional unity may be threatened. The potential threat has manifested itself in a dip in AMA and state society membership alongside a concomitant increase in specialty society membership. Isolated, this trend should not dampen patient advocacy efforts of organized medicine. But it becomes increasingly crippling when faced with numerous other forces—a move to balance the federal budget by slashing health care spending; layers of rules and regulations of how to and how not to practice medicine; ceaseless discoveries of better but more costly and therefore elusive technology with which to heal; and the prolific growth of ABCXYZ types of integrated health delivery systems. It is clear that the medical profession needs to stand united to address these timely issues ubiquitous to patients.

When devising our recommendations, the Study groups discussed the most fundamental of management concepts, from mission statement to values to vision. We sorted through external and internal environmental issues and trends. We debated the pros and cons of different methods of organizational design of the new AMA/Federation and discussed leadership and communication. And we created a new group called the Federation Coordination Team. This group will oversee the transition of change and explore joint ventures and other ways to strengthen interorganizational relationships. Importantly, it will conduct quality control activities to ensure that the objectives of the recommendations are met by the implementation of the recommendations.

Changes proposed by the consortium and project team are designed to enable groups of physicians who formerly felt disenfranchised to come together in a sense of common purpose. And we hope that young physicians who are grappling with changes in the rules of the game after they agreed to play will realize the ultimate wisdom of membership and professional activism in organized medicine to stand united against the challenge of division. By making the largest house of medicine more inclusive, fair, and representative, it is envisioned that it may become more relevant and more

effective. And we hope, ultimately, that we will be better able to serve patients by fulfilling the needs of our increasingly diverse profession.

We look forward to an enjoyable and productive discourse at the annual meeting (April 25-27) so that we may share the Maryland perspective with our colleagues from other states at the AMA meeting in June.

PRERNA MONA KHANNA, M.D., and ANGELO J. TROISI, F.A.C.H.E.

Dr. Khanna, a resident in preventive medicine at The Johns Hopkins University School of Hygiene and Public Health, is a member of the Project Team of the Study of the Federation. Mr. Troisi, Med Chi chief executive officer, is a member of the Study of the Federation Consortium. ■

Governor Glendening named "Outstanding Governor" by the American Medical Association

Maryland Governor Parris N. Glendening is among eight government officials honored by the AMA for outstanding public service in the field of health. Governor Glendening received the AMA's 1995 Dr. Nathan Davis Award as Outstanding Governor. Named for the AMA's founder, these awards have been presented annually in several categories since 1989. Governor Glendening was chosen because of his numerous actions toward improving the health of Marylanders since he became governor. These actions include his leadership role in passing Maryland's workplace smoking ban, which is one of the strongest in the country. Governor Glendening was also instrumental in the enactment of the Mothers' and Infants' Health Security Act and the Domestic Violence Act, which protect the health of women and infants, and the Patient Access Act, which enables consumers to have a greater choice in selecting their health care plans.

The governor was presented his award during a ceremony in Washington, DC, on February 6, 1996, which honored all of the 1995 award recipients. In his speech accepting the award, Governor Glendening outlined several "common-sense initiatives" to continue to protect the health of Marylanders. Included in these initiatives are efforts to recover from tobacco companies the costs of caring for those with smoking related-illnesses; reforming the state's Medicaid plan to assure access to quality health care; and proposing a strong handgun policy that will limit handgun purchases to one per month, require safety instructions and licensing for gun ownership, and impose tougher sanctions on illegal gun activity.



AMA president Lonnie R. Bristow, M.D., presents Governor Parris N. Glendening with the Dr. Nathan Davis Award honoring him as the 1995 outstanding governor.

Governor Glendening was nominated for the Dr. Nathan Davis Award by Med Chi president J. Rich-



George Malouf,Sr., M.D., head of the Maryland Delegation to the AMA, Frances Ann Glendening, Governor Glendening, and Med Chi president J. Richard Lilly, M.D., at the Dr. Nathan Davis awards ceremony.

Lilly, M.D., and George S. Malouf, Sr., M.D., chairperson of the Maryland delegation to the AMA House of Delegates. Med Chi president J. Richard Lilly, M.D., said, "The Maryland medical community is grateful to have Governor Glendening as such a strong advocate for our patients and health care. In addition to the landmark legislation he has helped enact, the governor demonstrated his dedication to improving health care throughout the state by placing physicians in top leadership positions, including Martin P. Wasserman, M.D., J.D, as secretary of health, and George S. Malouf, Sr., M.D., as chair-person of the Health Resources Planning Commission."

Other recipients of the 1995 awards include Senator Mark O. Hatfield (R-Oregon), Representative Bill Archer (R-Texas), state senator J. Tom Coleman, Jr., (D-Savannah, Georgia), and state representative David Prosser, Jr., (speaker of the Wisconsin General Assembly).

The honorees are chosen by an independent panel of judges. The 1995 judges were Thomas S. Foley, former Speaker of the House; Eleanor Merrill, associate publisher of *The Washingtonian Magazine*; J. Roy Rowland, M.D., former member of Congress; Gail Wilensky, Ph.D., senior fellow with Project Hope; P. John Seward, M.D., former chairperson of the AMA Board of Trustees; Lonnie R. Bristow, M.D., president of the AMA; and James S. Todd, M.D., executive vice-president of the AMA.

Recipients of the Dr. Nathan Davis Award in past years include: C. Everett Koop, M.D., Senator Lowell P. Weicker, Jr., Senator Orrin G. Hatch, Senator Edward M. Kennedy, Representative J. Roy Rowland, M.D., Representative Henry A. Waxman, Representative Charles B. Rangel, Louis W. Sullivan, M.D., Margaret M. Heckler, Antonia C. Novello, M.D., and many others.



AMA president Lonnie R. Bristow, M.D., AMA president-elect Stormy Johnson, M.D., Frances Ann Glendening, AMA trustee Nancy W. Dickey, M.D., Governor Parris N. Glendening, AMA executive vice-president James S. Todd, M.D.

Then-Governor William Donald Schaefer received the award in 1989, the first year the Dr. Nathan Davis Awards were given. ■

Madame Med Chi

Anyone even remotely affiliated with Maryland medical history is familiar with the names of some of its icons: Davidge, Osler, Welch, Ruhrah. Their names grace numerous lists of grants, funds, and endowments. They adorn the nameplates of buildings, statues, and halls. These gentlemen contributed mightily to the medical profession in Maryland, but in this the 100th year since she first assumed her position at the Medical and Chirurgical Faculty of Maryland, and on the 50th anniversary of her retirement and death, we honor Med Chi's own—Ms. Marcia Noyes. Her contributions, although not as widely heralded as those of her gentlemen colleagues, were nonetheless freely and gratefully acknowledged by them.

A New York native and graduate of Hunter College, Marcia Noyes originally came to Baltimore for an extended visit after the death of her parents. She eventually obtained a position at Enoch Pratt Free Library as a relief worker earning fifteen dollars a month. While working as a supervisor of cataloging for branch libraries, she was personally selected by Dr. William Osler—on the advice of Pratt Library head Dr. Bernard Steiner—to administer the Medical and Chirurgical Faculty Library as its first full-time, professional librarian. She would receive an annual salary of two hundred dollars and free lodging in a top-floor apartment at the Med Chi building, which she laughingly called her "penthouse." In her own words: "In less than two weeks from the time I learned of the existence of the State's medical association, I was living on the top floor as its Librarian, on duty twenty-four hours a day and getting the training necessary for my job by working it."[1]

Marcia's story is all the more remarkable because she had no previous medical training when she was selected for her Med Chi position. But her diligence, dedication, and contributions to the medical profession in Maryland would soon reach far beyond the realm of her Med Chi fiefdom: two years after coming to Med Chi she was present at the founding of the Medical Library Association (MLA) in Philadelphia on May 2, 1898; she was a founder of the MLA Exchange; she designed and implemented the Classification for Medical Literature—an innovative new classification system; and in May 1911, Marcia and Dr. John Ruhrah, treasurer of the MLA, became the Bulletin's first editors upon its establishment at the MLA's 14th annual meeting in Atlantic City. In 1934, Marcia received the singular distinction of being elected the first nonphysician president of the MLA, and shortly after her death in 1948, the MLA inaugurated the Marcia C. Noyes Award for outstanding achievement in the field of medical librarianship.[1]

At first, many of the Med Chi library patrons were distant and reluctant to approach the young novice for reference aid. She soon overcame this estrangement by attending all Med Chi functions, and in a crash course to make up for her unfamiliarity with medical literature, Marcia depended on the tutelage of several Med Chi members. Her chief patron, Dr. Osler, was especially supportive, taking time out from his own busy schedule to help Marcia better understand the medical interests of the library's various clients.

It naturally followed that in addition to a successful professional relationship, there soon developed a personal relationship between the two. Osler often honored Margaret with flowers on special occasions, and on his resignation from Johns Hopkins to accept the Regius Professorship at Oxford, England, he presented her with a bouquet.[1] He remained a generous supporter of the Med Chi library and a devoted friend after his departure and until his death, as did many of his renowned colleagues. As Osler's understudy, Marcia learned much about human motivation, and was "infected with his mission to improve the library and by so doing improve the quality of medical practice." She emulated his "instinctive tendency to give credit to others." She is described as "this light-hearted unassuming woman who gives her assistants the credit when things go right and contrariwise, takes the blame when they don't."[1]

In an ironic twist, Dr. John Ruhrah, a bibliophile like Dr. Osler, who had held posts as treasurer of the MLA (1910-1911) and chairman of the Library Committee (1916-1929), gave Marcia a dose of her own medicine. He and Marcia had held joint editorship of the Bulletin until 1926. In a 1912 "President's Address," official credit for reviving the flagging Exchange and creating the Bulletin was given primarily to Dr. Ruhrah. But his recollection and recounting of the years between 1907 and 1912 differ significantly from the official record: "...When I joined the Medical Library Association a good many years ago, it was almost on the rocks, and Miss Noyes and I were asked to take it over and see if we could not get it on its feet. I am very glad to say that Miss Noyes did take it over and did get it back on its feet. I was in the background...."[1]

Testimony to the personal esteem in which Ms. Noyes was held by Drs. Osler and Ruhrah and their peers can also be gleaned from correspondence on file at the Med Chi library. Some of the letters naturally contain references to Med Chi and MLA matters, but throughout many of the missives—professional as well as personal—one detects a warmth and familiarity that intimates not only mutual admiration and respect, but also sincere affection.

Marcia seems to have had this effect on everyone. When she first arrived at Med Chi, she was immediately faced with the problems of inadequate funding and staffing. Her only assistant during her first ten years was Gustave Orville Caution, a "French Negro," who "she hired because she liked his name...."[2] She also enticed two friends from Pratt to catalog in the evenings at twenty-five cents an hour. When she retired in 1946, Marcia allowed that the newest employee had been hired fourteen years earlier, and that person had been hired on a temporary basis.[1]

On April 24, 1946, Med Chi members attempted to plan a secret celebration to honor Marcia, but as she was aware of everything that transpired at Med Chi, she soon found it out. Marcia wanted the celebration postponed until November, which would properly mark her 50th anniversary. But due to her failing health, the planners felt it would be best to hold the fete as soon as possible. More than 250 physicians attended the dinner and reception, which included speeches and gifts for the honoree. The decision to move the celebration up proved to be not only fortuitous, but fateful as well. Marcia C. Noyes died on November 24, 1946.

As part of one's unofficial orientation upon employment at Med Chi, one inevitably hears stories of Marcia's spirit which—it is said—still roams the halls and library stacks of the elegant 1906 building at 1211 Cathedral Street. It was here that Med Chi moved on May 13, 1909, it was here that Marcia lived and worked for the last 50 years of her life, and it was here that she requested her funeral be held. In accordance with her wishes, services were held for Marcia in Osler Hall, and she was buried in Greenmount Cemetery.[1]

Among the first things one notices on entering the stately, recently refurbished Med Chi building are huge portraits in massive frames of bygone Med Chi presidents and notables. They stare out at visitors and employees in silent dignity like the busts of Roman emperors and senators that once graced the forum in imperial Rome. But it is not their presence that one feels in those hallowed halls; it is not their influence one senses. For it was here that Marcia Noyes lived, worked, and was lauded. And, upon her subsequent retirement and death, it was here that she laid in state and from whence her body was taken to be laid to rest. Sixty of Maryland's most prestigious physicians were in attendance to serve as pallbearers that day. But today, during National Library Week, 1996, we honor Ms. Marcia Noyes, the Grand Dame of Maryland medical librarianship, even as her friends and peers honored her fifty years ago.

Ronald Q. Harris
Mr. Harris is a library technician at Med Chi.

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The Baxley family: 169 years of continuous humanitarian service

"Withhold not thine hand." Ecclesiastes 11:16
INSCRIPTION ON THE SEAL OF THE BALTIMORE GENERAL DISPENSARY

The Baltimore General Dispensary, established in 1801 and chartered in 1807, is the oldest charitable institution in Baltimore. It endured until 1959 when it was converted to a foundation that could continue to serve humanitarian purposes. A corps of physicians at the Dispensary treated the indigent sick without regard to race or religious denomination. The only requirements were that the patient be sick, poor, and unable to pay for treatment and medicine.[1-4] In many instances, charity has been given on a racial basis, but from its earliest days, the Dispensary cared for all of the needy. This philanthropic institution is a measure of the development of Baltimore civilization.

A number of families have been associated with the Dispensary during its long career. One of the more well known is the Baxley group, who have helped to operate the organization in a number of capacities practically throughout its lifetime. The Baxley family and others realized that the ultimate care of the needy sick rested upon them. They accomplished much for the welfare of Baltimore inhabitants, and in doing so they incidentally provided increased knowledge and advancement of their profession.

Henry Willis Baxley, M.D. (1803-1876)

The first family member to achieve medical prominence in Baltimore, Henry W. Baxley attended St. Mary's College and received his medical degree from the University of Maryland in 1824 (unpublished geneology courtesy of Mrs. Charles [nee Baxley] Anthony). He was licensed by the state upon joining Med Chi, and his first medical position was that of attending physician at the Dispensary (1826-1829), where he later also served as a consultant (1847-1868). He was a member of Med Chi's first Library Committee in 1830.[5]

After a period as demonstrator in anatomy at the medical school of the University of Maryland, Henry Baxley became professor of anatomy and physiology. In 1837, he was involved in a temporary disruption of the medical school involving a dispute between the regents and the trustees. His election to the chair of anatomy and physiology was contested and led to the school's division into two medical faculties. When the case was brought before the Maryland Court of Appeals, the medical school was restored to the control of the regents.[6] For Baxley, this was an adverse decision, and he turned his interest toward the new Baltimore College of Dentistry, the first dental school in the country.[7] In 1839, he was a member of its faculty as professor of anatomy and physiology, but the association lasted only one year. He then became professor of surgery at Washington Medical College of Baltimore for

five years. In 1850, he was named professor of anatomy, and in 1852 professor of surgery, at the Medical College of Ohio in Cincinnati.

Jackson Brown Baxley (1814-1896)

Dr. Henry Baxley persuaded his younger brother, Jackson, to study pharmacy rather than join the Navy. The younger man subsequently became outstanding in the pharmaceutical field and was among the organizers of the Maryland College of Pharmacy. Jackson Baxley was educated at St. Mary's Seminary and then attended two courses of lectures at the Philadelphia College of Pharmacy. He operated a store in Mobile, Alabama, for ten years before returning to Maryland in 1840. His first pharmacy in Baltimore was at Howard and Franklin streets; he then moved to Madison and McMechen streets. He had a great interest in the Dispensary and was the apothecary there from 1845 to 1855. He also served as secretary (1865-1868), a member of the board of managers (1855-1896), and president (1868-1896).[8,9]



Jackson Brown Baxley
Courtesy of the Medical and Chirurgical Faculty of Maryland.

Claude Baxley, M.D. (1838-1918)

A son of Dr. Henry W. Baxley, Claude graduated from the University of Maryland in 1860. Like his father, he was an attending physician (1860-1867) and then a consultant (1868-1872) at the Dispensary. In 1873, he became professor of materia medica at the Maryland College of Pharmacy, a position he held until 1879.[10]

Jackson Brown Baxley, Jr., M.D. (1856-1892)

A graduate of the Maryland College of Pharmacy (1876) and the University of Maryland medical school (1884), Jackson, Jr., worked with his father in the pharmacy known as J. Brown Baxley and Son. The junior Baxley was the apothecary at the Dispensary from 1880 to 1882 and an attending physician from 1884 to 1892.



Henry Minifie Baxley, M.D.
Courtesy of the Medical and Chirurgical Faculty of Maryland.

Haughton Baxley, M.D. (1868-1926)

The son of Dr. Claude Baxley, Haughton graduated from the College of Physicians and Surgeons in Baltimore in 1889. Like his father and grandfather, he joined the Dispensary as an attending physician (1891-1901). He was also a member of the faculty of the Baltimore University School of Medicine in 1896, 1897, and 1904, being respectively prosector to the chair of surgery and demonstrator of pathology; lecturer on histology and physical diagnosis; and associate professor of histology and pathology. In 1898, while he was professor of nose, throat and chest at the Maryland Medical College, he assisted in the creation of Franklin Square Hospital.[11] His son, Haughton W. Baxley (1896-1976), graduated from Tufts medical school in 1919, but was never associated with the Dispensary.[12,13]

Henry Minifie Baxley, M.D. (1868-1950)

A younger son of Jackson Brown Baxley, Sr., Henry M. Baxley was a graduate of the Oxford School in Baltimore and the Maryland College of Pharmacy (1888).[14] Like his brother, Jackson, Jr., Henry Baxley earned a medical degree, from the Baltimore Medical College in 1892. He spent three years at the Maryland Medical College of Baltimore as professor of materia medica, therapeutics, and clinical medicine. He also was on the staff and faculty of Franklin Square Hospital (1909-1913). Associated with the Dispensary for all of his medical life, he became an attending physician there at the time of his graduation from medical school, a position he held for 58 years. He served as secretary (1919-1928), a member of the board of managers (1920-1950), and president (1928-1946).

C. Herbert Baxley (1897-1993)

The son of Dr. Henry M. Baxley, C. Herbert Baxley was not a physician, but he nevertheless devoted considerable time to the operation of the Dispensary. He was a member

of managers from 1950 to 1963 and president from 1958 to 1963. He compiled the history of the Dispensary in 1963.

Although the Dispensary closed in 1959 when it became a foundation, members of the Baxley family remain associated with it. Mrs. Charles (nee Baxley) Anthony and her son Stewart B. Anthony are members of the board of managers.

The Baxley family has given 169 years of continuous service to the Baltimore General Dispensary. Surely, these individuals have not withheld their hands.

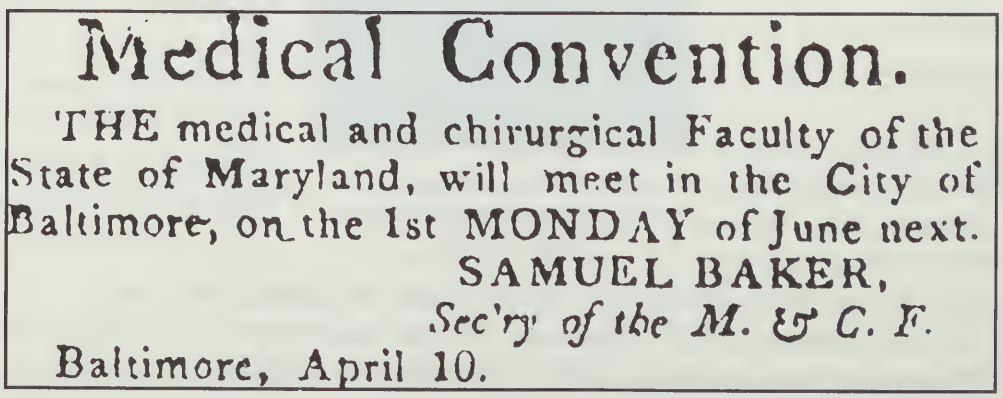
JOSEPH M. MILLER, M.D.
Dr. Miller is a retired surgeon in Timonium, Maryland.

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14. Anon. Dr. Henry M. Baxley. *The Sun*, June 14, 1950. ■

In 1799, when the Medical and Chirurgical Faculty of Maryland was established, Dr. Ashton Alexander, one of the youngest members, was elected secretary. He was ordered "to have published in some of the most public newspapers of the State of Maryland, the times and places appointed for the general meeting and boards of examination, together with an abstract of the proceedings of such meetings." At the second general meeting held in Annapolis in June 1801, Dr. Alexander was elected treasurer to succeed Dr. John Thomas Schaaff. Elected secretary was Dr. Nathaniel Potter, a new member who subsequently served until 1809. Dr. Samuel Baker, who became secretary in 1809, continued to publish notices in local newpapers until he resigned in 1813.

HENRY V. CHASE, M.D.
Frederick, Maryland



Medical Convention.

THE medical and chirurgical Faculty of the State of Maryland, will meet in the City of Baltimore, on the 1st MONDAY of June next.

SAMUEL BAKER,
Sec'ry of the M. & C. F.

Baltimore, April 10.

Notice published in the *Frederick-Town Herald*, May 16, 1812.

Books, Etc.

The Prostate. A Guide for Men and the Women Who Love Them. Patrick C. Walsh, M.D., and Janet Farrar Worthington. Baltimore, MD: The Johns Hopkins University Press; 1995. 344 pages. $39.95 (hardcover); $15.95 (paper).

Diseases of the prostate, especially the most common disorders—prostate cancer, benign prostatic hyperplasia, and prostatitis—are unquestionably of concern to most men. Cancer of the prostate, a little gland causing big trouble, is becoming common and generates much fear. In 1994, an estimated 200,000 men were diagnosed with this condition and 38,000 died because of it. The best hope is early diagnosis and effective treatment.

The Prostate. A Guide for Men and the Women Who Love Them is an authoritative, comprehensive book written for the lay public to help them understand the main disorders of the prostate and encourage them to seek early treatment. Written by Patrick Walsh, urologist-in-chief at The Johns Hopkins Hospital, and science writer Janet Farrar Worthington, the book is directed not only to men, but to the women in their lives who also may have concerns and fears and who may encourage them to see a physician.

In eleven chapters, the authors present a guide to the male urinary and reproductive systems, discuss the incidence and causative factors of prostate cancer, and describe screening diagnostic procedures. They address radical prostatectomy, radiation, cryoablation, and hormonal therapy, and one chapter is devoted to the concern about potential impotence after treatment and the possible recovery of sexual function. The authors provide adequate information on prostatic hypertrophy and prostatitis, as well as how these conditions are diagnosed and when they need to be treated. They also offer advice on how to choose a surgeon, what to expect before and after surgery, the medications that may be prescribed, and the problems that may develop.

In a clear writing style and with the help of excellent drawings and tables, the authors present a scientific subject in a way that should be understandable and interesting to the target readers. Each chapter is followed by a comprehensive summary, and the end of the book includes an extensive glossary and index. There is also a list of organizations that can be good sources of information for patients.

This is a book that will help men (and women) to learn about, understand, and intelligently discuss prostate problems with the physician. It is a book that physicians may wish to recommend when patients have concerns about or develop prostate disorders.

Chris Papadopoulos, M.D., F.A.C.C.
Baltimore, Maryland

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Ethics in Emergency Medicine. 2nd ed. Kenneth V. Iserson, M.D., Arthur B. Sanders, M.D., and Deborah Mathieu, Ph.D. Tucson, AZ: Galen Press; 1995. 570 pages. $39.95 (paper).

The second edition of *Ethics in Emergency Medicine* is a handsome paper-bound volume with a distinguished list of con-

tributors. It takes a case-based interdisciplinary approach to the problems faced in the unique ethical setting of the emergency department. The book is attractive; the material is well presented and well referenced. The discussions are well argued and soundly grounded in ethical theory.

Section 3 of the book contains core statements on medical ethics from such diverse sources as Hippocrates and the regulations of the U.S. Department of Health and Human Services.

Areas of potential ethical conflict in the ED that the book addresses include privacy, life-prolonging treatments, patient autonomy, and professional relationships. Eight cases in a section of academic medicine are especially interesting.

This excellent reference should be required reading for those who practice emergency medicine. It belongs in the ED library. The only disappointment with this book is that it typically resolves controversial issues with conventional, mainstream solutions. It breaks no new ground.

Charles E. Wiles, III, M.D.
Director, Multitrauma ICU, Surgical Traumatologist/Intensivist, Assistant Professor, University of Maryland School of Medicine/STCC

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Measuring Clinical Care: A Guide for Physician Executives. Steven C. Schoenbaum, M.D., M.P.H., editor. Tampa, FL: American College of Physician Executives; 1995. 174 pages. Paper. $40/ACEP members; $48/ nonmembers.

This collection of essays should be of considerable interest to practicing physicians as well as to the physician executives who are its target audience. If someone is measuring a clinician's care, the clinician should be interested in how these measurements are being made (do the physician executives use a 3-foot yardstick or a 2.5-foot yardstick?). There are 21 different authors for the 19 chapters. This diversity of authorship both lends strength in providing different viewpoints and has the weakness of disparity. On the whole, the editor has done a good job in bringing together different information sources.

The book is divided into three sections. The first gives perspectives on measurement of clinical care. It deals with measurement from the perspective of patients, employers, managers of health care organizations, and management of hospital and clinicians. The second section covers technical considerations in the measurement of care. This section is not too technical for any practicing physician to grasp easily. It examines the different measures of quality, the problem of risk adjustment, and the problems in design of experiments in care. The third section, which deals with topical issues, includes an interesting debate pro and con for linking clinical performance to compensation and an interesting essay on clinical

■■■■■■■■■ **ER** is a top-rated television program created by a well-known novelist and medical school graduate, Michael Crichton. As a medical show, it has generated much interest. What do you think of it? We would like to have your comments and critique. Send them to *MMJ* Reviews, 1211 Cathedral Street, Baltimore, MD 21201. ■■■■■■■■■■■■

guidelines as a tool for quality improvement.

The authors are all experienced experts in the medical care field; many hold high-ranking positions in HMOs or with corporate medical services or insurance companies. It is surprising that fully a third of the authors come from Boston. Could the oversaturation of physicians in the Boston area explain this? When Dr. Codman, superintendent of Massachusetts General Hospital, produced the first essay on "Measurement of End Results of Medical Care,"[1] he lost his position in the following year. Let us hope that this fate does not befall the Boston authors in this book.

My strong recommendation for this book is exemplified by the fact that I am keeping the review copy and suggesting that the Med Chi Library purchase an additional copy (copies) for interested readers.

Timothy D. Baker, M.D.
Professor of International Health, The Johns Hopkins University School of Hygiene and Public Health.

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Making the Physician Network Work: Leadership, Design and Incentives. Lisa K. Rolfe and Paul Wehner. Chicago, IL: American Hospital Publishing; 1995. 101 pages. Paper. $45/AHA members; $56.50/ nonmembers.

Making the Physician Network Work: Leadership, Design and Incentives is a recent publication from the American Hospital Association. In three chapters, one for each subtitle, it covers building a physician provider network for a managed health care system. Each chapter is a treatise in its own right and could be a free-standing reference. The target audience is clearly the principals establishing or managing the network, but any physician who is contemplating joining such a network can find useful information as well.

Nearly one third of the chapter on leadership is devoted to sources of information, research, and training in various aspects of managed care, including a listing of masters level programs. The remainder is devoted to integrating the oft-competing goals of the practitioner and the system, defining the proper roles for physicians within the organization, and performance evaluation.

The second chapter, Design, focuses on establishing the proper staffing levels and mix based on standard models of demand per capita and available practitioner time. It is especially helpful for understanding the alphabet soup of and limitations inherent in the various practice affiliations. It also contains a detailed summary of the legal and tax hurdles affecting the various forms of affiliation and some algorithms for determining whether to recruit or promote to attain the optimal staffing.

The final chapter is devoted to incentive (read compensation) plans. It outlines several schemes, discussing the trade-offs involved in attracting and rewarding new practitioners while not alienating the longer-tenured staff. Once again, legal and tax considerations are detailed for the various components of each scheme. Three case studies are furnished.

There is a multitude of "figures" (most more like tables), so many that they sometimes make the text difficult to follow. They also contain a disturbing number of typographical errors and omissions, especially in the formulae and the sample calculations. You cannot just take the formulae and plug in numbers, or you will sometimes get strange and inaccurate answers.

Richard C. Moore, M.D., M.P.H.
Director, USPHS Health Unit #1, Bluemont, Virginia ■

To Our Readers

The Editorial Board of the *Maryland Medical Journal* invites you to submit reviews of books, videos, and films of interest to the medical profession. Bringing your evaluation and analysis to the attention of your colleagues will be informative and stimulating. Send your report to: Chris Papadopoulos, M.D., Review Editor, *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201.

What Your Patients MAY BE READING

- *Be Informed: Questions to Ask Your Doctor Before You Have Surgery,* published by the Agency for Health Care Policy and Research, February 1996.
- "What's Up Doc? Holistic Practitioners May Be the Toast of the Coasts, But the Medical Establishment Has Its Doubts—Naturally."
  Allure, March 1996
- "Waiting For Baby: 30+ and Pregnant? Here's What to Expect"
  Aspire, March 1996
- "Trends in Human Genetics—Gene Testing Nightmares"
  Scientific American, March 1996
- "What's New In Birth Control?"
  Self, March 1996
- "The Dangers of Natural Diet Aids"
  Glamour, March 1996
- "How To Tell You're Fertile"
  Parenting, March 1996
- "Lunchtime Lifts—How to Get a Better Face and Body Before Your Lunch Hour is Over"
  Maire Claire, March 1996
- "When Skin Cancer Strikes—Early Signs Even Doctors Miss"
  Ladies Home Journal, March 1996
- "Obesity: Is It All In the Family?"
  Fit, March/April 1996
- "Beauty and the Breast. Silicone Implants: We're Still Being Kept in the Dark"
  Ms., March/April 1996
- "What You Must Know Before You Go to the Hospital"
  Redbook, March 1996
- "Sick of Being Sick? Hypochondria Isn't About Faking Illness. It's How Stress Makes You Sick"
  Self, March 1996
- "When to Call a Doctor"
  Mirabella, March/April 1996
- "The Country's Best Heart Doctors"
  Good Housekeeping, March 1996
- "Emergency Contraception: Your OB/GYN's Best Kept Secret"
  Cosmopolitan, March 1996
- "Is Your House Making Your Child Sick?"
  Child, March 1996
- "The Six Kinds of Headaches and the Way to Cure Yours"
  Redbook, March 1996
- "The Lowdown on Labor: The Whole Nine Months"
  Parenting, March 1996
- "10 Things Every Woman Should Know About Depression"
  Ladies Home Journal, March 1996
- "Can the New Medicine Cure You?"
  Washingtonian, February 1996
- "Your Privates: An Owner's Manual"
  Men's Health, March 1996
- "Coming To Terms With the New Gynecology"
  Self, March 1996
- "Measure Your Contraceptive Fears Against the Facts"
  Glamour, March 1996
- "The African AIDS Epidemic"
  Scientific American, March 1996
- "HIV's 'Morning After' Pill"
  Out, March 1996
- "The Price of Eggs: Undercover in the Fertility Industry"
  Ms., March/April 1996
- "Taming Diabetes. The Silent Killer That Prefers Blacks"
  Ebony, March 1996
- "Sexual Healing? Cosmetic Surgery for Your Genitals"
  Allure, March 1996

What practicing physicians must understand about the COBRA/EMTALA law

The Consolidated Omnibus Budget Reconciliation Act (COBRA) and a section within it entitled Emergency Medical Treatment and Active Labor Act (EMTALA), is the federal law that regulates the treatment of patients who present for care to hospitals that have an emergency department (ED) and that receive Medicare funds. COBRA '85, amended by OBRA '89 and '90, amended the Social Security Act and affected the treatment of emergency patients. The law requires hospital emergency facilities to evaluate and stabilize all patients, regardless of their ability to pay. Although the law primarily affects emergency physicians and hospitals, it also affects physicians who provide on-call service to EDs.

The law provides that every patient who comes to an emergency department complaining of illness must receive "an appropriate medical screening examination" to detect the presence of an emergency medical condition or the presence of labor, regardless of the patient's insurance status or ability to pay. The law requires that the screening and stabilization include all required "ancillary services routinely available to the emergency department."

The Health Care Financing Administration (HCFA) prohibits the hospital from delaying the screening examination to inquire about insurance. It also prohibits managed care plans from denying permission to examine or treat their enrollees. The law allows for reasonable registration procedures, but managed care requirements that call for authorization prior to screening may violate COBRA. If the patient is unstable, treatment must be provided until the patient is stable, and the patient may not be transferred until stable, or may be transferred if the benefits of transfer outweigh the risks.

Hospitals routinely maintain a list of physicians who are on call for emergency conditions. These on-call physicians were the subject of amendments to the law in 1990. HCFA expects all specialties represented on the medical staff to serve on the call list, and when a physician is on call, HCFA requires those specialists to participate "hands on" in the stabilizing treatment. On-call physicians who refuse to come in to the hospital, come in late, or order the patient transferred without personally examining the patient, violate the law and risk penalties including monetary fines and loss of Medicare funds to the hospital.

If the on-call physician refuses or fails to provide stabilizing treatment and as a result of this failure the patient requires transfer, the transfer is illegal, the emergency physician is not liable, and the name and address of the on-call physician must appear on the records at transfer. Thus, physicians violate COBRA if their failure to appear causes a prohibited transfer, and they become subject to the fines and penalties under the law.

Notification of a private physician that his or her patient is in the ED is not a COBRA violation. As a courtesy to private physicians, hospitals may allow private physicians to examine their own patients if done in a timely fashion, but delay of the screening examination to wait for the private physician's arrival is a violation. The emergency physician is responsible for all patients in the ED and may not delay the screening examination until the arrival of a private physician. Furthermore, the patient may not be sent to the doctor's office for an examination without a screening examination by the hospital. Hospital policy determines the allowable delay in arrival of the private physician before the emergency physician is required to examine the patient.

Physician preferences for hospitals cannot override the federal regulations, and a patient transferred to the "wrong" hospital may not be removed or transferred without a screening examination. If a nursing home patient is intended for transfer to Hospital A, and Hospital A is on bypass and directs the ambulance to a hospital where the attending physician does not have privileges or consultants, the patient must have a screening examination at the receiving hospital before either return to the nursing home or transfer to another facility. A similar situation might occur if a patient intended for Hospital A is assessed by paramedics as unstable and brought to a closer hospital.

COBRA, which requires hospitals to treat all patients regardless of ability to pay or type of insurance coverage, has created concerns for managed care entities when enrollees present with what seem to be nonemergency conditions. Physicians, therefore, need to be aware of their responsibilities under COBRA so that proper screening and treatment can occur with all patients who present to the ED.

Daniel E. Kohn, M.D.

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Waiver of copayments or deductibles: are you helping a patient or committing fraud?

In an effort to assist their patients, many physicians routinely write off the patient's copayment or deductible. Under most circumstances, however, you may not waive a copayment or deductible for a patient. To do so violates *every* contract you have signed! Waiving copayments or deductibles for a Medicare patient can land you in federal court (criminal and/or civil), and waivers for HMO patients and indemnity carriers can result in loss of your contract. Commercial indemnity insurers are using mail fraud statutes to prosecute providers who waive copayments or deductibles.

Many patient explanation-of-benefits forms include a statement advising the patient to call a toll-free fraud hotline set up by the insurer if the patient was told the services would be provided for insurance only or at reduced prices. Many insurers now conduct random patient surveys by telephone and mail to see if physicians have accepted insurance only.

Insurers feel that if you submit a claim for services for $100 and they pay $80, and you accept that as payment in full, then you really charged only $80 and they therefore should pay only $64. Based on the mathematics, it soon becomes apparent that the only way for the physician to waive the copayment or deductible is to not charge the patient at all for the service.

Why are waivers a problem?

Many physicians do not understand why "helping" a patient this way is a problem. When you waive a copayment or deductible, however, you have *induced* the patient to come to you as opposed to another physician. When patients state that they may not be able to see you if they have to pay their copayment, this should send a warning to you. Remember, the waiver of copayments and/or deductibles is considered a fraudulent act under the federal antikickback statute.

The insurer reasons this way: the patient thinks he or she is ill enough for the visit/procedure/test if someone else shoulders all the responsibility for payment, yet rationalizes not needing the visit/procedure/test if there is a cost. To the insurer, at this point the visit/procedure/test is not medically necessary.

Many elderly patients in particular do not like to owe money to anyone for anything. If they have to pay out of pocket, then they just won't have the service provided. The practice of absolution, however, is construed as a violation under the kickback clause with the Medicare program and other insurers.

If you choose to reduce your patient's responsibility to you, you must reduce the charge *before* you submit to the insurer. Your patient will still have a copayment, but it will be less, and so will your reimbursement. If you continue to reduce your fees in an effort to assist the patient, at some point your charge will become zero. But do not provide services for free. That practice will come back to haunt you.

The state is preparing to implement its data capture component of HB 1359. In doing so, it will capture all your charges and reimbursements and formulate a fee schedule for the state based on data collected. If you lower your fees, you will bring down the state average for your specialty and lower the reimbursement for everyone.

Why insurers take this position

If a patient can visit a physician without having to shoulder at least some financial responsibility, the patient may overutilize services, and the insurer is the only party at risk. This eventually costs everyone more in the form of premiums, not just the overutilizer. The employer suffers during the rate increase the following year, other employees suffer as the premiums they pay are escalated, and the insurer may have to add staff due to increased claim volume, which also increases expenses. In the case of Medicare, the Medicare Trust Fund is already on precarious financial ground and may not be there for us and our children.

Insurers also base their premiums and their anticipated expenses on the basis that they have designed their plans as "cost sharing," meaning the patient *must* have a copayment. One large HMO in Maryland demands in its contract that physicians collect the copayment at time of service, not later, and that if the patient fails to pay the physician the copayment in 30 days, the physician can have the HMO revoke the patient's coverage. Blue Cross and Blue Shield of Maryland has expanded this clause in its new contract to state that physicians will not waive copayments or deductibles as a condition of the contract.

In 1990, the Health Insurance Association of America (a consortium of health insurers that then included the nation's seven largest insurers) reported that from 1987 to 1989, its member companies listed waiver of copayments and deductibles as 14.4% of their fraud caseload. The member companies felt that such waivers were "much more widespread and may accompany almost all other types of health care fraud."

"I just won't bill them"

Federal law states that physicians will handle CHAMPUS and Medicare patients the same as other patients in their practice population. In other words, if you send all other patients' accounts to a collection agency on the 90th day of delinquency, you *must* also send Medicare and CHAMPUS patients' accounts at the same time intervals. Several years ago, a hospital in Washington, DC, was fined $5 million for not complying with this law.

Professional courtesy

The National Health Care Antifraud Association defines the term *professional courtesy* as *free* care provided to a physician or a physician's immediate family by another practitioner. You may *not* bill the insurer of the physician to whom professional courtesy is extended and write off the copayment or deductible. Either the care must not be billed to anyone, or it must be billed to everyone.

Helping a patient of little means

Although some hospitals still have access to Hill-Burton funds, there is unfortunately no comparable mechanism for physician services. Discussed below, however, are ways to assist patients who cannot legitimately pay for needed health care in a physician setting. Such cases are socially uncomfortable situations for all concerned because people will have to tell you of embarrassing personal financial situations. Handling these cases requires the tactful involvement of a staff member who knows the process. In addition, you will not be able to help all those you may want to help.

Hardship waivers. Patients who advise physicians or staff that they would have trouble paying the bill may qualify for a hardship waiver. Such waivers involve research into the patient's financial condition and a determination that the patient is simply unable to pay due to hardship circumstances. Although your inclination may be to grant all requests for a hardship waiver, to grant many will be construed as sidestepping the law. In other words, you should not grant nearly as many as you deny. This is not easy to do when the stories are gut-wrenching.

The patient should be referred to a staff person at the financial counselor/patient account representative level. The person who will actually make the decision to grant or deny the waiver should *not* be involved. The employee explains to the patient that the specific reason why the bill cannot be paid must be put in writing. The fact that the patient lives on a fixed income; has prescription bills to pay; has to pay rent, utilities, and car insurance; and has other bills to pay (medical or otherwise) is *not* valid for purposes of a hardship waiver (almost all Medicare patients fit into this category). The patient must describe very specific circumstances as to what created the hardship. Although

the patient cannot be told what to write, the employee can ask questions. Was there some sort of tragedy? Was there a fire? Was there an unexpected expense such as a broken water pipe or leaking roof?

The patient may balk at putting everything in writing, but he or she should be gently advised that the procedure is the *only* way the physician can help. Once the patient's written statement is received, a senior management staff person (*not* the physician) should review the situation and make a decision. A letter regarding the decision (either positive or negative) should be sent to the patient and a copy to the file in case of an audit.

Decisions regarding hardship waivers must be made on a case by case basis. In addition, a granted waiver cannot be considered ongoing; it must be granted individually for *each* date of service after the initial waiver.

Be prepared to back up the decision during an audit. If a patient is paying for items like cable television, large long-distance telephone bills each month, or other such items, you will be hard-pressed to explain why those monies cannot be paid to you on a monthly basis instead. You, not the patient, must be able to explain why the waiver was granted in lieu of monthly payments to you.

If the patient can only make minimal monthly payments and you do not want to carry the account receivable into the next millennium, send the account to your collection agency with a note that payment arrangements have been made.

Qualified Medicare beneficiary. The federal QMB program is designed to assist patients just at or below the national poverty level. Under this program, the state pays the Medicare premiums for the patient, as well as the deductibles and coinsurance. There are rules as to assets, so have the patient contact the state social services office for information.

Specified low-income Medicare beneficiary. This federal program is designed to assist patients whose incomes are up to 10% higher than the national poverty level. Under this program, the state will pay only the Medicare premiums; the patient must still pay the deductibles and coinsurance. There are rules as to assets so have the patient contact the state social services office for information.

The *Washington Post* reported in an article last year that any forgiven amounts totaling more than $600 per annum must generate a Form 1099 to the patient.

C. SHERWOOD HARRIS, CCAM
Mr. Harris is the editor of *KeepInforMD* and principal of Health Care Consulting Services. ■

The National Institutes of Health Consensus Panel report *Cochlear Implants in Adults and Children* is now available. The consensus conference was convened last May by the National Institute on Deafness and Other Communication Disorders and the NIH Office of Medical Applications of Research. It was cosponsored by the National Institute on Aging, the National Institute of Child Health and Human Development, the National Institute of Neurological Disorders and Stroke, and the Department of Veterans Affairs.

Free, single copies of the complete consensus statement may be ordered from the NIH Consensus Program Information Service, P.O. Box 2577, Kensington, MD 20891 (800-644-6627). The full text of the statement is also available on the Internet:

- World Wide Web: http://text.nlm.nih.gov
- Gopher: gopher://gopher.nih.gov/Health and Clinical Info.
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Question

Diabetes mellitus is a frequent diagnosis in my medical practice. My staff often asks me to clarify my medical record regarding the type of diabetes and complications that can affect the patient's medical condition. They keep telling me that they cannot code the diagnosis appropriately. Can you give me some guidelines on the use of the diabetes codes in the ICD-9 CM?

Answer

First, let's go over some definitions that will help your staff when coding for a diabetic condition.

Type I. Insulin-dependent diabetes mellitus. Onset is usually abrupt, usually before the age of 40. Patients must have insulin to survive. The minority of diabetics are insulin-dependent.

Type II. Non-insulin-dependent diabetes mellitus. Patients typically are over the age of 40 and often are overweight. This type of diabetes can be treated with diet, weight loss, exercise, and the use of oral diabetic medications. Insulin may be needed, but it is not necessary for survival. (In other words, insulin is used for brief periods, not every day for years.) The majority of diabetics have type II diabetes.

Impaired glucose tolerance. Often referred to as "borderline diabetes," impaired glucose tolerance is not diabetes; it is in the middle area between normal and diabetic. Fasting blood sugar levels are usually between 116 and 139 mg/ml.

Secondary diabetes. Diabetes that is related to pancreatic surgery or results from the administration of certain drugs.

Gestational diabetes. Diabetes that develops during pregnancy.

Previous abnormal glucose tolerance. Refers to a patient who has been recently diagnosed as diabetic, but who now has a normal blood sugar level due to a better diet, weight loss, increased exercise, etc. Such patients are always at risk to redevelop diabetes.

Appropriate ICD-9 CM codes

- type I diabetes mellitus
  250.x use fifth digit 1 or 3
- type II diabetes mellitus
  250.x use fifth digit 0 or 2
- type II diabetes mellitus, uncontrolled
  250.x use fifth digit 2
- type II diabetes mellitus, insulin requiring
  250.x use fifth digit 0
- impaired glucose tolerance
  790.2 (abnormal glucose tolerance)
- gestational diabetes
  648.8x (abnormal glucose tolerance—gestational diabetes)
- previous abnormal glucose tolerance
  V12.2 (personal history of endocrine, metabolic, and immune disorders)

Other factors

- What does *controlled* mean?
  When a physician treats a patient with insulin, medication, diet, or exercise, then for coding purposes the diabetes can be referred to as controlled.
- Can a type II diabetic become a type I diabetic?
  Yes, when the type II diabetic needs to use insulin every day (long-term) to treat the diabetes.
- What series of ICD-9 CM codes are to be used to code hypoglycemia?
  Use the 251 code category "Other disorders of pancreatic internal secretion." Make sure that the patient is being classified correctly. The 251 code category is not to be used for gestational diabetes or for patients who are fatigued.

Complications of diabetes

- diabetic dermopathy (skin conditions)
- diabetic retinopathy (eye conditions)
- diabetic neuropathy (nerve damage)
- diabetic nephropathy (renal disease)
- vascular disease
- diabetes with other specified manifestations (hypoglycemic shock)

- diabetic ketoacidosis (DKA, usually presents in type I patients)
- hyperosmolar nonketotic coma (usually found in older type II patients)
- diabetes with other coma (hypoglycemic coma)

The fourth digit for the code category 250 indicates the type of manifestation to the diabetes or the lack of manifestation/complication.

Coding for a specific complication of diabetes

Code the type of diabetes first, selecting the correct 250 category code that reflects the type of manifestation/complication. Then code the specific ICD-9 CM code that reflects the specific complication [e.g., cataract, gangrene, etc.). ■

Question

My office staff recently attended a coding seminar and returned to the office concerned about "unbundling" or "fragmentation." Can you please explain this concept and how it affects coding/billing for medical services?

Answer

Bundling means wrapping items together in a group or package. *Fragmenting* means detaching or breaking something apart from the whole, making it incomplete. In terms of the CPT surgical codes and the global package concept, unbundling/fragmentation is the process of coding separately for integral services that make up a major surgical or medical procedure. CPT does not have any guidelines on unbundling. Instead, insurers have developed guidelines based on information from the CPT book. The three most common areas of CPT used by insurers to substantiate their unbundling/fragmentation guidelines are format of terminology, listed surgical procedures, and separate procedures.

Format of terminology

CPT uses a space-saving format in listing the CPT codes and their descriptions. The format indents the codes in a specific section that repeats a common portion of the procedure/service description. The common portion of the description can be found to the left of the semicolon. CPT indicates that these procedures have a portion of the procedure/service in common.

Some insurers, however, interpret this format to indicate that the indented services are subordinate to the preceding procedure/service that is not indented. Therefore, all indented services/procedures are an integral part of the main procedure being performed. Coding the indented services separately would be considered unbundling by these insurers. Consider the following example.

29819	arthroscopy, shoulder, surgical; with removal of a loose body
29820-51	arthroscopy, shoulder, surgical; synovectomy, partial
29825-51	arthroscopy, shoulder, surgical; with lysis of adhesions, with or without manipulation

Services coded with 29820-51 and 29825-51 in this example may be considered an integral part of 29819 and may be denied payment by an insurer. Medicare would process payment for this group of services following its special "Endoscopy Pricing" methodology, which would allow a payment for the synovectomy and lysis of adhesions in addition to the arthroscopy and the removal of a loose body. However, the payment would be reduced to allow a benefit for only one arthroscopy instead of three as would occur if Medicare had not established this special pricing. Other insurers may recognize modifier "22" with code 29819 when the other supposedly related procedures required a significant amount of time and effort in addition to the primary procedure. It is

important for office billing personnel to understand the different billing guidelines for the insurers billed by your practice because if there is little understanding of the variances and requirements, the reimbursement for the service/procedure can be adversely affected.

Listed surgical procedures

In the *CPT Guidelines* section for surgery can be found specific CPT guidelines for surgical coding. This guideline indicates that all surgical procedures listed in the surgical section include the operation, local infiltration, metacarpal/digital block or topical anesthesia if used, and normal uncomplicated follow-up care for the procedure. This guideline is often referred to as the "global surgical package." Many insurers expand on this definition to include exploration of operative area; lysis of adhesions and fulguration of bleeding (moderate); application of dressings; and closure of surgically created wounds, minor debridement, and wound culture. Consider the following example.

45123	proctectomy, partial, without anastomosis, abdominal and perineal approach
11043-51	debridement of skin, subcutaneous tissue, and muscle

Many insurers consider debridement to be part of the proctectomy and would deny payment for 11043 when billed with 45123. However, if the debridement was extensive and documented in the operative report, the use of modifier "22" with code 45123 may be appropriate. With the documentation noting the extensive debridement, thereby qualifying the procedure as an "unusual service," some insurers will allow an additional benefit for the proctectomy. It is important to know which insurers will consider additional payment for so-called unusual services.

Separate procedures

The *CPT Guidelines* surgery section refers to services that are frequently performed as an integral part of another service and should not be separately identified. When this component of a larger procedure is performed alone, however, then it is considered a separate procedure and should be billed as such. Consider the following example.

47600	cholecystectomy
49000-51	exploratory laparotomy (separate procedure)

A laparotomy (surgical abdominal opening) is necessary to perform a cholecystectomy as identified by code 47600. Insurers would consider the 49000 to be a part of the cholecystectomy and would deny payment for the service. If the cholecystectomy was performed using a laparoscopic cholecystectomy, it would be coded using CPT code 56340. If the exploratory laparotomy was performed in addition to the laparoscopy, insurers may allow an additional benefit for the laparotomy because the laparotomy made the service more extensive than the normal procedure. In this case, 56340 would be billed with modifier "22."

Knowing how insurers handle the unbundling/fragmentation issue is essential. It is also very important that you be able to communicate why you think one procedure is not part of another procedure. Finally, appeal denied claims when you have the documentation to support your position that one service is not related to another. Medicare has implemented the Correct Coding Initiative, effective January 1, 1996. The Correct Coding Initiative includes services Medicare considers bundled together.

Deborah Bell, CPC
Ms. Bell is a regional coding and reimbursement consultant certified in medical coding by the American Academy of Procedural Coders. ■

Are you or members of your staff in a coding quandary? Send your questions to Deborah Bell, CPC, in care of *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201, or fax to the attention of Mary Ann Ayd, 410-547-0915.

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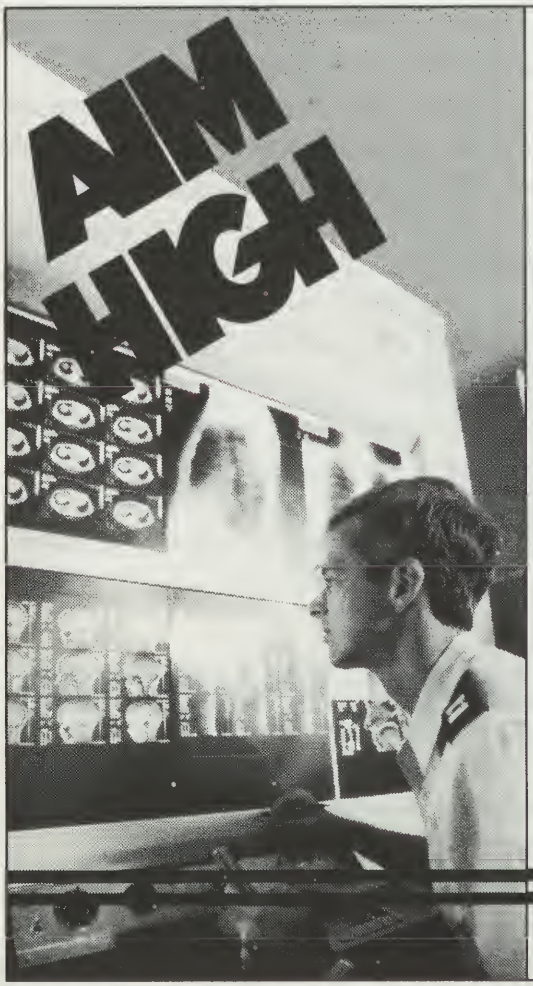
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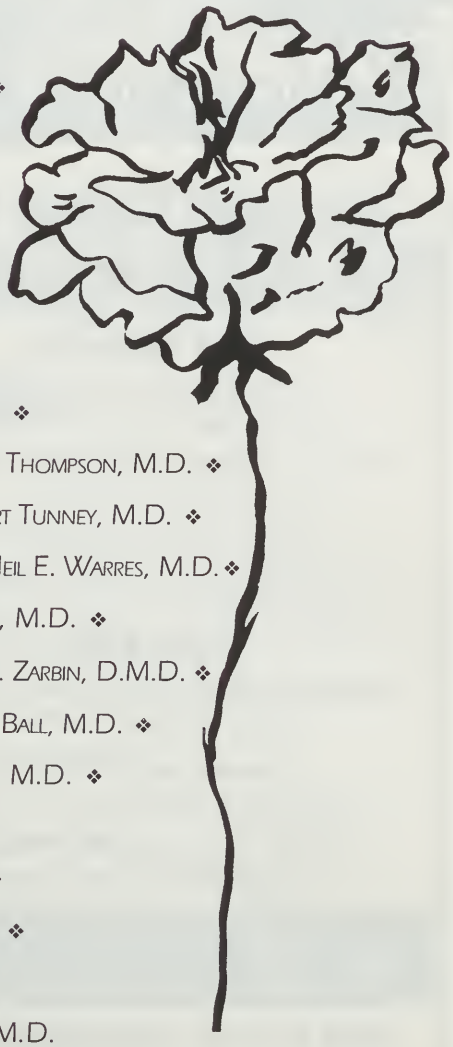
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Doctors' Day, March 30, 1996

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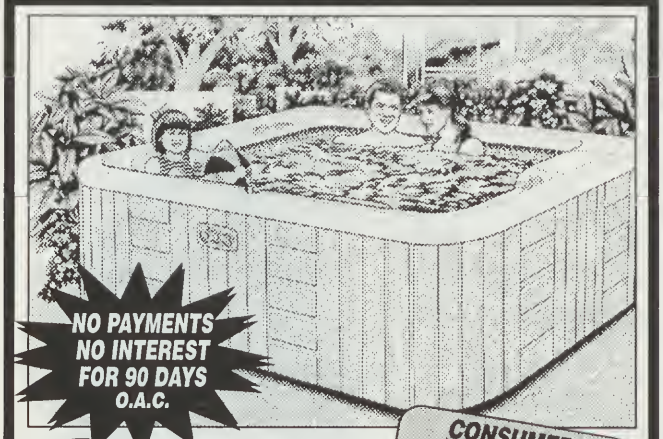
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Minutes of the Special Meeting of the House of Delegates
November 18, 1995

▼ *Call to order*

The special meeting of the House of Delegates was called to order at 10:10 a.m. by the speaker of the House, Allan D. Jensen, M.D. The meeting was held in Osler Hall of the Med Chi building. Dr. Jensen introduced Michael Preston, Esq., new Med Chi legal counsel, the parliamentarian for this meeting.

▼ *Credentials*

Stuart Brager, M.D., noted that a quorum of at least 50 members was present. Reynaldo Lee-Llacer, M.D., Prince George's County, asked for the exact number of delegates present. The count was 70 delegates present.

▼ *Opening remarks*

Dr. Jensen summarized the events leading up to this special House of Delegates meeting. The meeting was called because of written request of at least 50 members, as provided in the bylaws.

- Maryland Physicians, Incorporated (MPI) was created by direction from the former Council and the House of Delegates, to study the possibility, and then to create a physician-owned entity to ensure Med Chi physicians' access to patients. Med Chi is the only stockholder of MPI and the Med Chi Board of Trustees appoints the MPI Board of Directors. MPI presented a proposal at the September 1995 House of Delegates meeting to work with hospitals in partnership with First Option Health Plan, Inc. (FOHP), and this concept was discussed at the meeting of the House of Delegates. At that time, the House adopted a resolution supporting the Board of Trustees' decision to allow MPI to continue dialogue with FOHP and adopted another resolution to tentatively schedule a meeting on November 18 for an update regarding negotiations with FOHP.
- At a special meeting of the Board of Trustees held on October 11 to discuss the relationship between MPI and FOHP, new legal advice was received from counsel retained by Med Chi. Following the review of that advice, two resolutions were adopted at that meeting:
  - The Board of Trustees directed the MPI board to develop a physician-owned or controlled entity, to consider alternatives other than MPI, and to report to the House of Delegates before a final decision.
  - The Board of Trustees instructed MPI to cease all discussions with FOHP because due to the legal issues raised, Med Chi could not endorse any managed care organization at that time.
- Dr. Jensen noted that according to the bylaws, the call for special meetings must state the purpose(s) for the special meeting and only those items may be included on the agenda. The following items were the only ones on the agenda for this special meeting:
  - to hear the Board of Trustee's decision regarding MPI and FOHP;
  - to consider the Medicaid Waiver issue;
  - to consider the Medicare proposals before Congress.

  Dr. Jensen commented that he had been asked about Med Chi simply "echoing" AMA policy. He pointed out that the opportunity for Med Chi to present its position was through its delegates to the AMA House and that in the absence of a specific Med Chi policy, the AMA policies have been adopted.

  Dr. Jensen announced that shortly after the call for this meeting, several resolutions regarding the Medicaid and Medicare proposals were submitted to Med Chi and distributed to the component societies by the Baltimore City Medical Society. He noted that there was an honest disagreement over the handling of the resolutions. As the speaker of the House of Delegates, it was his interpretation that this special meeting was legally called; that the call for the meeting permitted the House of Delegates to consider Medicare and Medicaid proposals; and that since these are late resolutions, two thirds of the members of the House of Delegates must agree to hear them and if two thirds agree, they should be heard.

  He pointed out that staff has a narrower interpretation, and in a letter to the executive director of the Baltimore City Medical Society dated November 3, Angelo Troisi, Med Chi CEO, stated that because the resolutions were not specifically referenced in the call for the meeting, they could not be introduced. Dr. Jensen also pointed out that

much of the action requested in these proposed resolutions was already being accomplished by Med Chi councils and committees. He also noted that the call for the meeting was to hear about MPI and FOHP and there would be no votes or action on the first item.

Regarding the next two items, whether the House of Delegates could hear resolutions, make motions, and take actions depends on the definition of the word *consider*. He said that both he and the vice speaker felt that *consider* means the House of Delegates can hear resolutions and vote on items relating to these two specific issues, if approved by a two-thirds vote.

Dr. Jensen then outlined the procedure for the meeting. During the first part of the meeting, after presentations from the speakers, he anticipated that resolutions would be introduced. He hoped that there would be no objections, but if there were he hoped they would be substantive and rational, and not based merely on technical grounds. If there was objection, a ruling from the parliamentarian, Mr. Preston, would be requested.

At this time, Willarda Edwards, M.D., asked, as president of Baltimore City Medical Society, to express her sentiments regarding this meeting. She said that she has always felt that Med Chi should be for physicians, so that we can discuss what is happening to us and our patients, and together we can determine strategies for improving our situation. She noted that we have seen things occurring in the health care delivery system at a rapid pace, to the point that many in leadership positions have been unable to keep up with the changes. The state medical society provides an opportunity for the members to hear about what is happening, to get a better understanding, and to express themselves.

Dr. Miltenberger asked to address Dr. Jensen's comments about the meeting. Dr. Jensen ruled it out of order.

▼ ***Board of Trustees' decision regarding MPI and FOHP***

Alex Azar, M.D., Med Chi president-elect, on behalf of J. Richard Lilly, M.D., president, presented the report on the Board of Trustees' decision regarding MPI and FOHP.

He noted that shortly after the last meeting of the House of Delegates, FOHP made several requests:

- joint press conference at which time Med Chi's endorsement of FOHP would be made public;
- mailing list of all 7,000 members to solicit support;
- retreat with the Board, which FOHP offered to pay for; and
- use of Med Chi stationery and its implied endorsement, to send its information to component societies.

Dr. Azar noted that both the president and the CEO thought that the requests were premature and called a special meeting of the Board of Trustees on October 11, 1995, to discuss the question of the relationship between Med Chi, MPI, and FOHP. All Board of Trustees members were present. Lawrence Pinkner, M.D., chairperson of the MPI board, presented a list of 26 questions and answers from FOHP. The trustees reviewed a memo received the day of the meeting from Steven J. Sfekas, legal counsel retained by Med Chi.

Then Dr. Azar distributed copies of the legal opinion of Mr. Sfekas to the members of the House of Delegates and asked the delegates to read it. He also distributed copies of the resolutions that were adopted by the Board of Trustees regarding FOHP. Dr. Azar then noted that with this information in hand, the House of Delegates was now as informed as the Board of Trustees was when it made its decisions at the special meeting on October 11, 1995.

J. David Nagel, M.D., inquired if the information presented means that MPI can go ahead and explore, as the Board of Trustees had mandated, a physician-owned company. Dr. Azar stated that it does, but also noted that some members of that board have resigned. He noted that the details provided by Mr. Sfekas provided the Board of Trustees with needed information. Frederick Miltenberger, M.D., Allegany County, said that he felt that the Board of Trustees had overstepped its proper role in approving the last motion at its special meeting. Dr. Azar noted that this action was needed, since FOHP needed an immediate answer from Med Chi.

Rafael Haciski, M.D., Baltimore County, noted that Mr. Sfekas raised three points in his legal opinion regarding FOHP: Med Chi acting improperly as a securities marketing agent; Med Chi retaining its status as a nonprofit organization; and potential antitrust issues. Dr. Haciski inquired whether the Board of Trustees has made any effort to get answers to these questions. Dr. Azar noted that the Board of Trustees was attempting to obtain answers to these questions.

J. Leonard Lichtenfeld, M.D., trustee and delegate representing the Specialty Society Section, said that during the special meeting of the Board of Trustees he learned that by

serving on both the Board of Trustees and the MPI board, he had a conflict of interest. Therefore, he believed that he could not vote on the issue of MPI. He noted that during the meeting was the first time that MPI learned that an independent legal opinion had been sought and that the information was incomplete. He noted that MPI, with the approval of Med Chi, had retained as counsel David Ford, Esq., a lawyer who was considered exceptionally competent, and it was his legal opinion that this was perfectly legal.

Dr. Lichtenfeld noted that at the Board of Trustees meeting, he realized that FOHP was "dead in the water." As a member of the Board of Trustees, he did not feel that Med Chi should go forward because of the potential risk and potential divisiveness and because of the legal opinion sitting on the table. However, as a member of the MPI Board, he had felt that FOHP was reasonable, that the members should be educated about it, and that it should go forward. Dr. Lichtenfeld questioned whether Mr. Ford was advised of the outside legal opinion and asked to comment on it and noted that he had been fired. Dr. Lichtenfeld also raised the question of whether Med Chi, as a nonprofit organization, can participate in any managed care organization, and that issue must be resolved before Med Chi can move ahead on any action. He concluded by saying, "I for one support not working further with First Option."

Dr. Lichtenfeld then noted, as a point of personal privilege, that it had come to his attention that a member of the Board of Trustees had impugned his integrity and that of other members of the MPI board by stating that they had been offered positions with FOHP. Dr. Lichtenfeld stated for the record that he has had no contact or discussions with FOHP other than communications at public meetings of MPI and FOHP. He said, "There has been no such offer made, no such offer sought, and no such offer accepted." He said the reason he disclosed his conflict of interest was because of what he was told by counsel for this organization that night.

Merrill Cohen, M.D., Prince George's County, speaking for himself, thanked Dr. Lichtenfeld for clearly defining the issues: that the issue is whether an organization which represents all the physicians in Maryland can come up with a single policy that all of the physicians can live under in such an economic environment for the future; or whether the role of Med Chi is to foster legislative change; or to support other independent groups of physicians of like principles and goals who can get together to decide what they want to do. He noted the difficulty of getting all physicians to agree on an economic or business structure. Dr. Cohen stressed that Med Chi's role is to support, nurture, and get information. Med Chi should not try to impose upon the physicians of Maryland a broad scheme, such as an insurance structure. Rather, it was Med Chi's role to support the physicians in the state.

Catherine Smoot-Haselnus, M.D., Wicomico County, thanked Dr. Pinkner for leading the board of MPI with utmost commitment and integrity, and also every board member who made every effort to make appropriate decisions.

Reynaldo Lee-Llacer, M.D., Prince George's County, thanked the Board of Trustees for getting Med Chi out of trouble.

Dr. Azar noted that a group of physicians can pool money, get legal advice, and form a network. However, those networks lack the infrastructure to go forward and frequently fail. Med Chi might set up a business that could do central credentialing procedures for all networks and carriers. Such an entity could carry out utilization review, become a medical data clearinghouse, function as a grievance committee about managed care—in total, function in seven or eight different roles. The Board of Trustees is looking at this type of entity, which would benefit all the physicians in the state.

▼ ***Medicaid waiver issue***

Joseph Fastow, M.D., chairperson of the Council on Medical Services, presented the report. Dr. Fastow reported that the term *waiver* refers to a way to remove federal restraints from the state Medicaid program and to promote managed care for medical assistance patients. He noted that with block grants being approved by Congress, there may be no need for a waiver and no need for legislation, but rather everything could be handled through the regulatory channels.

Dr. Fastow noted that reform needs to occur because of a loss of revenue and that it involved $50 million a year for seven years. On a per-citizen basis in Maryland, every citizen currently pays $250 a year for Medicaid alone and this amounts to $1,000 per family. With the requirement of block grants, it is anticipated the figure will go to $300 per person and $1200 per family, which is a significant financial burden. He also pointed out that this cost is probably underestimated because of the aging population.

The waiver process done by the University of Maryland Baltimore Campus (UMBC) was to comply with guidelines of the federal government and essentially the results were predictable. There were meetings, both public and steering committee meetings, at which people gave testimony on why their program should not be "gored." When the proposal

itself was published there were few details. However, the UMBC report is not binding on the Department of Health and Mental Hygiene (DHMH). If there is no block grant, DHMH will submit its own legislation, which may or may not have something to do with the waiver proposal developed by UMBC.

Dr. Fastow cautioned the House of Delegates against putting forth any resolutions that would lock Med Chi in its negotiations with DHMH and Secretary Martin P. Wasserman concerning proposed legislation on this issue.

Dr. Fastow noted that Med Chi's position to UMBC focused on the high cost users. The state has a high cost user initiative, which was funded by the legislature and is now under way by the same people at UMBC who initiated the waiver proposal. He noted that 300 individuals out of 45,000 high cost users are being managed by the high cost user initiative program. Dr. Fastow felt that this program must be expanded and noted that the Maryland Hospital Association, in its remarks on the waiver, stated that same strategy. He noted that approximately 10% of medical assistance patients account for 70% of the cost. Half of those are individuals with chronic disabilities and multiple organ or multiple substance problems, and half are elderly people in nursing homes. Dr. Fastow stated that the nursing home patient issue would be addressed by a separate task force, which has yet to take any action.

Dr. Fastow noted that the UMBC proposal focuses on placing healthy people in managed care; however, there are no savings to be realized there. The focus should be on the high cost users, and there must be innovative solutions for patients with chronic disabilities and they need not be related to the managed care that is offered to other medical assistance patients. Also, recipient responsibility must be stressed from Medicaid to public assistance. Approximately 80% of people who are on Medicaid go on public assistance. There is a need for the coordination of these services to provide incentives.

He also noted that managed care organizations need to educate recipients and provide cost-effective triage to decrease the number of medical assistance patients who present to the emergency department and to pay emergency physicians who are seeing medical assistance patients.

Dr. Fastow then drew the Board of Trustees' attention to the part of his report regarding access to care. The significant successes of the MAC programs and certainly whatever is envisioned by DHMH regarding a waiver must include physicians without any particular constraints placed on them. Dr. Fastow also noted that managed care organization solvency requirements question whether a network would have the same solvency requirements as an HMO. He also pointed out the significant issue of transportation cost: how a small network and individual providers would be able to do this. Dr. Fastow noted that the waiver capitates care under managed care, but under point of service compensation should be the same as for non-Medicaid recipients. Dr. Fastow recommended that Med Chi stand firm on that issue. He stated that if physicians are going to see Medicaid patients enrolled under managed care, they also should receive the same fee schedule.

Eric Fine, M.D., chairperson of the Public Health Committee, then reported on the Medicaid 1115 Waiver issue, copies of which were distributed. He noted that the committee had no problems supporting the comments of Baltimore City Medical Society regarding the waiver.

Dr. Fine noted that Joseph Millstone and Mary Mussman, M.D., of the DHMH Medicaid Program, at a meeting at Med Chi, gave a different perspective on the issue. He then shared the information contained in overheads used by Mr. Millstone during his presentation as follows:

- Although the women and children who are subject to the Medicaid proposal account for 72% of participation in Medicaid, they only account for 35% of payments out of the Medicaid program.
- Medicaid has been doing the following to try to control cost:
  - hospital utilization review with disallowance of length of stay;
  - third party liability;
  - MAC program, which it believes nets it $20 million savings;
  - current HMO Medicaid which supposedly saves $17 million.

Dr. Fine noted that Mr. Millstone stressed that irrespective of the 1115 Waiver, Maryland is faced with a loss of $60 million in the Medicaid program in this current fiscal year, going to $150 million in the subsequent fiscal year and $2.8 billion in seven years. Mr. Millstone had pointed out what Maryland plans to do to offset the costs and said very little about the waiver proposal. Dr. Fine commented that the waiver proposal was phase one in the overall plan to control cost. He

noted that although Med Chi and Baltimore City Medical Society may discuss issues of quality of care and services to mothers and children, the real issue before Maryland is controlling the cost of the Medicaid program. To do this, DHMH is proposing the following options:

- limiting payments;
- limiting services; and
- limiting enrollment.

Dr. Fine stated that under the Medicaid proposals before Congress, eligibility will be separated from Aid to Families with Dependent Children. The state will be able to publish its own eligibility requirements for receipt of Medicaid services. Dr. Fine stated that this, coupled with the proposed welfare reforms, would decrease the number of medical assistance recipients as a cost control measure, and increase the gray area population. He noted that Maryland will find a number of individuals who will not have any type of coverage. Dr. Fine stated that the state was considering

- eliminating inpatient care for the medically needy populations;
- eliminating nursing home care for 3,000 people;
- instituting an income cap so that individuals will not automatically have access to long-term care;
- limiting the number of inpatient days.

Dr. Fine noted that the state had a great deal of flexibility under the proposals before Congress. It only has to make sure that a certain percent of its block grants are allocated to mothers and children and to the disabled and elderly. He pointed out that although the original proposal, SB 694, envisioned that the state, through the waiver, would be able to expand services to 100,000 mothers, DHMH feels it would only be able to save the state the projected loss of revenue from the cuts in the Medicaid block grant.

At the request of the House speaker, Angelo Troisi, chief executive officer, read a letter sent to the secretary of DHMH at the request of the Board of Trustees, dated October 20, which enclosed Baltimore City Medical Society's comments regarding the 1115 Waiver.

▼ ***Medicare proposals before Congress***

Donald T. (Ted) Lewers, M.D., member of the AMA Board of Trustees, reported on Medicare proposals. He stated that it was necessary for the AMA to endorse the package of the Republican Party in the House because:

- There was no health care reform in 1994, which led to major problems.
- There has been a change in delivery system.
- There is a much more aggressive managed care and insurance industry.
- There are patients who are unhappy with the delivery system.
- There is a liability system in which the frequency and severity of cases is increasing as we speak.
- Medicare Part A Trust Fund is going broke.
- Medicare is the last fee-for-service program.

Dr. Lewers then noted that the AMA House of Delegates, which is its policy-making body, represents, through the state and specialty societies, 94% of all physicians in America. The Speaker of the House requested that the AMA work with the Republican leaders. They invited the AMA to come in and speak, and listened to them. The AMA saw this as an opportunity to reestablish physician leadership in health policy, to establish physician autonomy, and control the health care delivery system. Dr. Lewers noted that House Speaker Gingrich asked the AMA to present to him a plan within two weeks on how AMA physicians would transform Medicare; the AMA did that. The AMA House of Delegates was meeting at that time and they were able to put together a document that contained everything the AMA thought was important to give physicians the autonomy to practice medicine the way they see fit to do so, to continue the quality of health care, and to bring the patients back into the equation. The speaker was surprised that the AMA was able to put together a document on such short notice, to revitalize health care and Medicare.

Dr. Lewers noted that the U. S. House of Representatives endorsed everything that the AMA had asked for in June 1995. Since the House bill contained almost everything the AMA had asked for except for some minor items and one major item, the AMA felt that it could endorse the House bill, and it did. He stated that the House worked on the document during the summer, and recently when Congress voted, the AMA got 80% of what it had originally requested.

Dr. Lewers then discussed several aspects of the bill.

- First, it puts the patient in control. It offers the patient a choice: fee for service, traditional Medicare, savings accounts, and networks. Now physicians can establish their network with antitrust relief. It changes from the

"per se" rule (which states that if you get together and it doesn't work, or you are anti-competitive, then you are in violation of the antitrust law) to the rule of "reason." The physicians have been put back into control to establish their own networks and delivery systems, to go out and compete against the managed care industry.

- Second, it provides patient protection: the right of the physician to appeal any adverse decision on behalf of the patient; the requirement for the managed care organization to disclose all of its criteria and standards and some of the profit; repeal of most of the Stark provisions; removal of physicians' labs from CLIA; prohibition of discrimination against physicians trained outside the United States; and a task force to look at graduate medical education and work force needs.
- Third, it provides for a single conversion factor, which is the one very controversial issue. Dr. Lewers noted that the AMA has been criticized because of this and understands the problems. OBRA '93 is repealed in the package. He then explained what would have happened under the old conversion factor and how the new conversion factor will work. He noted that under the old conversion factor, by the year 2000 physicians would have been "paying the patients" that they saw, whereas this is not true under the conversion factor in the new package. Physicians will now get an inflationary increase of the GNP plus 2 percentage points. He noted that if physicians hold their volume growth to 4% (referred to as the "fail safe system"), they will get increases.

Dr. Lewers concluded by noting that the night before the liability reform, networking and antitrust portions of the package were "kicked out" in the Conference Committee. He also noted that hospitals were a big loser in this package. The for-profit hospitals have the package and appear to be very happy with it, but the American Hospital Association is not. Unfortunately, everyone has to pay something out of this. The physicians came out the big winners.

Dr. Lichtenfeld, chairperson of the Med Chi Legislative Committee, reviewed the conversion factors and the AMA decision to back the House plan. He noted that physicians now have in their hands the ability to take control of their destiny if they learn to cooperate and get together for the greater good.

Joseph Snyder, M.D., AMA delegate, thanked Dr. Lewers for all he has done for Med Chi and for physicians of this country.

George Bone, M.D., Prince George's County, asked about provider sponsored organizations (PSOs) and the insurance commissioner. Dr. Lewers explained that under the new bill, the National Insurance Commissioners (NIAC) will set all standards for networks, except solvency issues. State insurance commissioners, who are part of NIAC, will have a role. The Senate would like to see every PSO come to its own state, be rejected, and then have to go back to the federal government.

Willarda Edwards, M.D., president of Baltimore City Medical Society, noted that the House was very proud to have an AMA trustee from Maryland, and given that the actions that were taken were in line with the Baltimore City Medical Society resolutions, Baltimore City Medical Society would not ask that their resolutions be heard formally. However, she asked that the speaker have the same issues addressed or reported back at the next meeting.

▼ ***Other business***

Dr. Miltenberger said that the Allegany Medical Society wanted to introduce a resolution. Dr. Jensen reminded Dr. Miltenberger that at the beginning of the meeting it was noted that no resolutions on MPI or FOHP would be entertained. An official ruling was requested from the parliamentarian, who stated that under the Rules of Med Chi, late resolutions presented orally from the floor are out of order. The parliamentarian ruled that since no written resolution was presented prior to the meeting, it will not be considered. As a point of personal privilege, Dr. Miltenberger asked for a copy of the rules.

▼ ***Date of next meeting***

The next meeting of the House of Delegates will be held January 20, 1995, at the Med Chi building in Baltimore.

▼ ***Adjournment***

There being no further business, the meeting was adjourned at 12:09 p.m.

Paul A. Stagg, M.D.
Secretary ■

WELCOME!

The Medical and Chirurgical Faculty of Maryland welcomes the new members listed below. They join an organization with a 197-year history of dedicated service to improving the health and welfare of the people of Maryland. With the help and expertise of longtime members and the participation and input of new members, Med Chi can continue its proud tradition of ensuring quality health care.

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Med Chi Bicentennial Celebrations

Med Chi has already begun planning celebration activities for its bicentennial in 1999. If you have any ideas or suggestions, please call Margaret Burri at 410-539-0872 or 1-800-492-1056.

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

Biological response to orthopaedic implants, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 13 Cat 1 AMA credits. Fee: $275/physicians; $140/residents, fellows.	**April 12–13**
24th Annual pediatric trends, 42 Cat 1 AMA credits. Fee:$695/physicians; $495/allied health professionals.	**April 15–20**
Tenth annual mood disorders symposium, 5 Cat 1 AMA credits. Fee: $50/DRADA members; $60/all others.	**April 23**
Lipid disorders training program—basic course, credits: TBA. Fee: $250.	**April 23–25 & Sept. 17–19**
Pediatric allergy and immunology for the practitioner, 14.5 Cat 1 AMA credits. Fee: $275/physicians; $200/residents, other allied health professionals.	**April 25-26**
Practical management of Alzheimer's disease and other dementias, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 7 Cat 1 AMA credits. Fee: $145/physicians; $110/psychologists in practice; $90/residents, fellows, allied health professionals.	**April 27**
First international conference on the exstrophy-epispadias complex	**May 1–2**
Advances in cardiac diagnosis and treatment 1996, Mt. Washington Conference Center, Baltimore, MD.	**May 2–3**
13th Annual Wilmer nursing conference	**May 3**
Critical issues in surgical pathology	**May 3–4**
41st Annual topics in clinical medicine, 39.5 Cat 1 AMA credits. Fee: $750/physicians; $600/residents, fellows, other allied health professionals.	**May 13–17**
Basic concepts in dysphagia diagnosis and management, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $185/physicians; $120/allied health professionals.	**May 29**
Sixth multidisciplinary symposium on dysphagia, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 14 Cat 1 AMA credits. Fee: $425/physicians; $245/residents, allied health professionals.	**May 30–31**
Ninth summer institute in environmental health sciences, The Johns Hopkins Unversity School of Hygiene and Public Health. Info: Denise Barton, 410-955-3537.	**June 3–14**
Clinical trials, 15 Cat 1 AMA credits.	**June 4–5**
Interface of biomechanics and cell biology in orthopedics	**June 6–8**
Advanced pediatric life support, 20 Cat 1 AMA credits.	**June 10–12**
Age-related macular degeneration: update 1996	**June 14–15**
Lipid disorders training program—advanced update, Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150.	**Sept. 6**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The Johns Hopkins Medical Institutions (continued)

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Self-Directed CME Activities

U.S. medical costs and values: primary prevention versus end-stage treatment, monograph and test. Expires Aug. 1996, 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interaction: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous meetings

Clinical psychopharmacology: review and update—1996, Sheppard Pratt Conference Center, Baltimore, MD. 13.58 Cat 1 AMA/PRA credits. Fee: TBA. Info: 410-938-4598. **April 12–13**

Treatment of facial wrinkles, with a laser resurfacing surgery certification course, sponsored by Greater Baltimore Medical Center (GBMC) at the GBMC Physicians Pavilion East Conference Center, Baltimore, MD. 10.5 Cat 1 AMA credits. Fee: $300/physicians; $150/nurses; $50/residents. Info: 410-828-3670. **April 19–20**

Virginia Society of Otolaryngology-Head and Neck Surgery annual meeting, at the Homestead Resort, Hot Springs, VA. Info: Donna Scott, 804-649-2407. **April 26–27**

Miscellaneous meetings (continued)

Vascular update: ultrasound in the 90s, sponsored by Greater Baltimore Medical Center (GBMC) at the GBMC Physicians Pavilion East Conference Center, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $100/physicians; $80/sonographers/nurses/residents. Info: 410-828-3670. — **April 27**

Clinical auscultation of the heart, sponsored by the American College of Cardiology, Gorman Building Auditorium, Georgetown University Medical Center, Washington, DC. 17 Cat 1 AMA credits. Info: 1-800-257-4739. — **May 8–10**

Sixth annual current concepts in orthopaedics, sponsored by the Southern Medical Association, Omni Inner Harbor Hotel, Baltimore, MD. Cat 1 AMA credits available. Fee: $295/SOA members; $359/SMA members; $495/all other physicians; $50/residents/fellows; $100/nonphysicians. Info: Michelle Williamson 205-945-1840. — **May 16–18**

48th Annual meeting, scientific session, and exposition, sponsored by the Maryland Academy of Family Physicians, Sheraton Fontainebleau Hotel, Ocean City, MD. 26.5 Cat 1 AMA/AAFP credits. Fee: $280/members; $325/nonmembers; $110/allied health professionals. Info: Leonard H. Raucher, M.D., 410-747-1980. — **May 16–19**

Clinician-patient communication in managed health care conference, sponsored by the Bayer Institute For Health Care Communication, Hyatt Regency, Washington, DC. 12 Cat 1 AMA credits. Info: 1-800-875-4412. — **May 30–June 2**

Systematic approach to the management of chest pain: a paradigm for re-engineering in medicine, sponsored by The School of Medicine, Medical College of Virginia, Virginia Commonwealth University, at the Williamsburg Marriott Hotel, Williamsburg, VA. 12.25 Cat 1 AMA credits. Fee: $450. Info: Bonnie Ware, 804-828-4980. — **May 31–June 2**

Management strategies of behavioral disturbances in dementia, sponsored by the MGS/MGA and the Geriatrics Committee of the MAFP at Keswick. No fee. Info: Joseph J. Gallo, M.D., M.P.H., 410-955-0599. — **June 11**

Third annual intensive review of internal medicine: an update for clinicians, sponsored by the George Washington University Medical Center, Crystal Gateway Marriott, Arlington, VA. 32 Cat 1 AMA credits. Fee: $575/physicians; $375/residents, fellows. Info: Deborah Karpowicz, 202-994-4285. — **June 19–22**

Dynamic psychotherapy in the new era: possibilities and problems, sponsored by the American Psychiatric Association Office of Education, The Given Biomedical Institute, Aspen, CO. 18 Cat 1 AMA credits. Fee: $400/early registration; $450/after May 10, 1996. Info: Maria Gorrick, 202-682-6145. — **July 29–Aug. 2**

Continuously throughout the year

American College of Cardiology, The Heart House Learning Center, Bethesda, MD. Info: 1-800-257-4737.

Echocardiography in coronary artery disease: live demonstration and interpretations of exercise and pharmacologic stress echo. — **April 10–12**

Advanced pediatric cardiac ultrasound. — **April 15–17**

Cardiac pacing—1996: new indications for pacing, rate adaptive pacing updates, update on cardioversion–defibrillation. — **April 18–20**

Miscellaneous meetings (continued)

Transesophageal echocardiography: live demonstration of technique, image orientation, interpretations, and current and evolving applications of biplane and multiplane TEE.	**April 24–26**
Echocardiography as we approach the year 2000—teleconference.	**April 27**
Aggressive management of cardiovascular emergencies featuring the role of urgent echocardiography.	**May 1–3**
Nuclear cardiology for the technologist.	**May 6–8**
Recent advances in clinical nuclear cardiology featuring case review with the experts.	**May 9–11**
Pediatric cardiac catheterization update—1996.	**May 13–15**
Echocardiography: a clinical review—emphasis on TEE, stress echo and Doppler hemodynamics.	**May 23–25**
Peripheral artery disease: contemporary strategies for diagnosis and therapy.	**June 3–5**
Advanced catheter ablation of cardiac arrhythmias.	**June 6–8**
Interpretative echocardiography: an advanced seminar in interpretation of two-dimensional, Doppler, stress, and transesophageal echocardiography.	**June 10–12**
Cardiovascular magnetic resonance imaging: an important technology of today, but a major approach of tomorrow.	**June 13–15**
Stent/Rotablator®/DVI: the new strategies for approaching the patient.	**June 24–26**

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 am. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, in the Zamoiski Auditorium, Thursdays, 9:00—10:00 a.m. Info: 410-578-5528.

PHYSICIAN'S RECOGNITION AWARD

During January 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

Frank H. Anderson
Hosein A. Arfaa
Ruth S. Ashman
Robert J. Ginsberg
Robert A. Goralski
Geoffrey E. Greene
William T. Greer
Jae-Koo Kim
Joseph F. Klein
Michael J. La Penta
Donald F. Manger
Richard W. Niska
Malene Piccio-Azarcon
Frank M. Ryan
Louis Semenoff
Raymond N. Sjaarda
Ellis Turk
Ann Carroll H. Webb
Edward C. Werner
Paul S. Zimmons

Parris N. Glendening - Governor of Maryland

Martin P. Wasserman, M.D., J.D., Secretary
Department of Health and Mental Hygiene

J. Mehsen Joseph, Ph.D., Director
Community Health Surveillance & Labs Admin

Ebenezer Israel, M.D., M.P.H., Director
Epidemiology and Disease Control Program

DHMH Maryland Department of Health & Mental Hygiene

EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

201 West Preston Street, Baltimore, Maryland 21201 (410) 225-6700

April, 1996
Statistics on Rabies and Tuberculosis in Maryland

The following four tables present statistics on rabies and tuberculosis in Maryland compiled by the Epidemiology and Disease Control Program, Center for Veterinary Public Health (rabies) and Division of Tuberculosis Control (TB).

Table 1. Species of Rabid Animal by Month of Detection--Maryland, 1995

	Species of Animal							
Month	Bat	Cat	Dog	Fox	Raccoon	Skunk	Other	Total
January	0	1	0	2	28	4	0	35
February	0	0	1	3	17	3	0	24
March	0	0	0	2	39	3	*1	45
April	2	2	0	5	29	1	+2	41
May	1	1	0	2	23	3	*+2	32
June	0	7	0	4	23	2	@1	37
July	3	3	1	3	22	2	+1	35
August	1	0	0	2	31	4	@1	39
September	2	0	0	6	18	4	+1	31
October	1	1	0	3	43	8	+1	57
November	0	1	0	2	27	2	0	32
December	0	1	0	2	27	3	#1	34
Total	10	17	2	36	327	39	11	442

* opossum; +groundhog; @bovine; #equine

Table 2. Species of Rabid Animal by Jurisdiction-- Maryland, 1995

Jurisdiction	Bat	Cat	Dog	Fox	Raccoon	Skunk	Other	Total
Allegany	0	0	0	1	1	4	0	6
Anne Arundel	2	0	0	2	33	1	0	38
Balto. City	0	0	0	0	0	0	0	0
Baltimore Co.	0	1	0	6	27	1	0	35
Calvert	0	0	0	0	5	0	*1	6
Caroline	1	1	0	2	12	5	+1	22
Carroll	0	0	0	3	23	1	#1	28
Cecil	0	0	0	2	5	0	0	7
Charles	0	0	0	0	5	0	0	5
Dorchester	0	0	0	0	4	0	0	4
Frederick	2	3	2	6	48	10	+2@1	74
Garrett	0	0	0	0	17	0	0	17
Harford	0	1	0	3	11	2	0	17
Howard	0	1	0	1	7	1	+1	11
Kent	0	2	0	0	4	0	0	6
Montgomery	2	1	0	4	33	2	0	42
Pr. George's	0	3	0	2	28	0	*+2	35
Queen Anne's	0	1	0	3	18	0	0	22
Somerset	0	0	0	0	9	0	0	9
St. Mary's	0	0	0	0	0	1	+1	2
Talbot	0	1	0	0	10	5	0	16
Washington	3	1	0	1	19	6	@1	31
Wicomico	0	0	0	0	7	0	0	7
Worcester	0	1	0	0	1	0	0	2
Total	10	17	2	36	327	39	11	442

*opossum; +groundhog; @bovine; #equine

Table 3. Species of Rabid Animals in Mid-Atlantic Region by State and Year--1994 and 1995

State	Year	Bat	Bovine	Cat	Dog	Fox	Groundhog	Raccoon	Skunk	Other	Total
Delaware	1994	2		9	2	3	1	38	17	2 rab	74
	1995	3	1	9	4	10	3	53	14	1 equ	98
Maryland	1994	5	1	9	2	30	4	412	55	2*	520
	1995	10	2	17	2	36	6	327	39	3%	442
Washington, DC	1994							4			4
	1995							12			> 12
Virginia	1994	9	9	25	4	17	5	251	105	3+	428
	1995	8	8	27	4	21	3	271	114	3@	459
West Virginia	1994	7		2	3	8		37	25		82
	1995	7	1	2	3	8	1	62	29		113
Pennsylvania	1994	8	7	29	2	21	5	211	75	5#	^363
	1995	15	8	25	2	30	10	219	106	3&	418

* 1 equine, 1 ferret
\+ 1 equine, 1 opossum, 1 otter
\# 1 goat, 2 equine, 1 deer, 1 bobcat
^ Provisional statistics

% 1 equine, 2 opossum
@ 1 squirrel, 1 bobcat, 1 equine
& 1 deer, 2 equine
> Through November 30, 1995

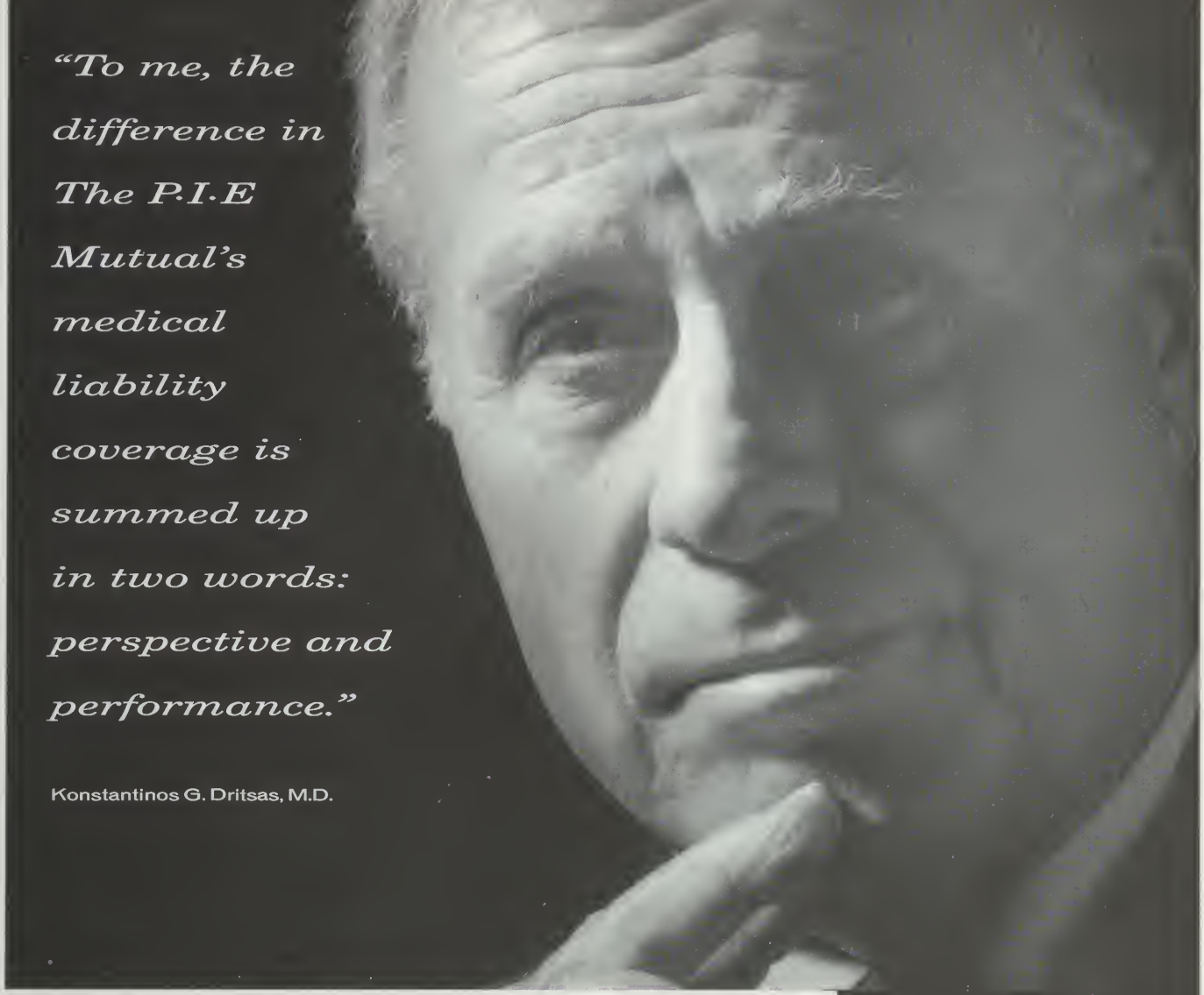
Table 4. Tuberculosis Cases and Rates (per 100,000 population), 1981-1995, by Maryland Jurisdications, Sex, Race, and Age.

	1981		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991		1992		1993		1994		1995	
	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate	Case	Rate
* Maryland	619	14.6	540	12.6	409	9.4	427	9.9	434	10.2	362	8.2	429	9.8	466	10.2	404	8.7	384	8.2	451	9.4	442	9.1	417	8.4	362	7.3	370	7.3
Total Counties	344	9.9	319	9.1	261	7.4	255	7.2	252	7.0	220	6.0	282	7.7	294	8.0	276	6.9	262	6.5	304	7.5	315	7.7	297	7.0	258	6.0	273	6.3
Baltimore City	275	35.6	221	29.0	148	19.4	172	22.9	182	23.6	142	18.8	147	19.4	172	22.9	128	17.1	122	16.4	147	19.9	127	17.2	120	16.4	104	14.8	97	14.0
* Allegany	4	5.0	3	3.8	5	6.3	4	5.1	3	3.8	5	6.3	2	2.6	3	4.1	0	0.0	4	5.6	1	1.3	5	6.6	1	1.4	2	2.7	2	2.7
Anne Arundel	28	7.4	29	7.5	29	7.3	20	5.0	18	4.7	18	4.5	15	3.8	18	4.3	15	3.5	20	4.6	15	3.5	18	4.1	12	2.7	15	3.3	19	4.1
Baltimore Co.	50	7.6	56	8.4	54	8.1	49	7.3	29	4.4	21	3.2	50	7.5	52	7.6	41	6.0	32	4.7	42	6.1	38	5.4	42	6.0	35	4.9	32	4.5
Calvert	1	2.7	0	0.0	1	2.5	4	10.4	2	5.5	1	2.4	2	4.9	0	0.0	3	6.2	0	0.0	2	3.9	5	9.1	1	1.8	3	4.8	4	6.2
Caroline	8	33.9	2	5.3	4	16.5	0	0.0	3	12.9	2	8.3	1	4.2	3	12.0	2	8.0	1	4.0	1	3.9	2	7.2	0	0.0	2	7.0	0	0.0
Carroll	4	4.0	2	1.9	3	2.8	3	2.9	2	2.0	1	0.9	1	0.9	6	5.1	1	0.8	4	3.3	5	4.1	3	2.3	6	4.5	3	2.2	3	2.2
Cecil	5	8.2	2	3.2	2	3.2	4	6.5	2	3.2	4	6.1	2	3.1	0	0.0	2	2.8	0	0.0	0	0.0	2	2.5	2	2.7	2	2.6	0	0.0
Charles	4	5.3	6	7.6	7	8.6	7	8.8	7	9.0	12	14.1	4	4.7	4	4.2	2	2.0	1	1.0	3	3.0	2	1.9	3	2.7	2	1.8	0	0.0
Dorchester	5	16.2	7	22.7	4	12.9	6	19.6	0	0.0	2	6.5	3	10.0	5	16.7	5	16.7	5	16.8	0	0.0	3	9.7	5	16.5	1	3.3	3	9.9
Frederick	7	5.9	5	4.1	3	2.4	3	2.4	10	8.4	8	6.2	7	5.5	6	4.4	10	7.1	0	0.0	3	2.0	5	3.2	4	2.5	10	5.8	6	3.4
Garrett	1	3.7	0	0.0	3	10.6	1	3.6	0	0.0	1	3.6	1	3.8	0	0.0	0	0.0	0	0.0	0	0.0	1	3.5	0	0.0	0	0.0	0	0.0
Harford	17	11.4	9	5.9	6	3.9	10	6.5	9	6.1	6	3.8	3	2.0	5	3.0	3	1.8	7	4.1	4	2.2	6	3.2	4	2.1	5	2.5	7	3.3
Howard	10	7.9	5	3.8	2	1.4	10	7.3	7	5.5	5	3.5	11	7.8	5	3.0	4	2.4	3	1.7	6	3.2	7	3.6	10	4.7	4	1.9	12	5.5
Kent	1	6.0	1	6.0	1	5.9	0	0.0	0	0.0	2	12.0	2	11.9	0	0.0	1	5.9	2	11.8	0	0.0	2	11.6	3	16.4	0	0.0	1	5.3
Montgomery	64	10.9	68	11.5	32	5.3	58	9.9	65	10.9	51	8.0	57	8.9	85	12.1	79	11.0	83	11.3	94	12.4	95	12.8	112	13.6	80	10.0	102	12.6
PrinceGeorges	76	11.4	74	11.1	71	10.7	49	7.2	70	10.5	49	7.2	73	10.8	69	10.0	86	12.4	77	11.1	84	11.5	88	12.0	71	9.4	75	9.8	62	8.0
Queen Annes	5	18.9	1	3.7	1	3.6	1	3.6	6	22.7	1	3.5	3	10.5	3	9.6	5	12.6	0	0.0	2	5.8	0	0.0	3	8.2	4	11.1	4	10.7
St. Mary's	4	6.5	3	4.8	5	7.8	2	3.1	1	1.6	6	9.1	4	6.1	3	4.2	0	0.0	0	0.0	1	1.3	2	2.6	2	2.5	3	3.7	1	1.2
Somerset	8	41.7	7	36.3	6	31.1	2	10.6	1	5.4	1	5.2	6	31.5	2	10.2	0	0.0	3	15.2	6	25.5	4	17.2	1	4.0	2	8.4	1	4.1
Talbot	6	23.3	3	11.5	1	3.8	1	3.9	1	3.8	2	7.4	2	7.4	2	7.2	0	0.0	1	3.6	1	3.2	2	6.8	3	9.3	0	0.0	0	0.0
Washington	15	13.1	6	5.2	3	2.6	3	2.6	6	5.4	2	1.7	4	3.5	5	4.3	4	3.4	2	1.7	4	3.2	7	5.8	4	3.2	4	3.2	5	3.9
Wicomico	14	21.2	17	25.4	11	16.2	16	23.6	7	10.8	17	24.9	26	38.3	16	22.2	10	13.7	13	17.6	25	33.6	11	14.4	6	7.7	3	3.8	9	11.3
Worcester	7	22.1	11	34.0	3	9.7	2	6.3	3	9.5	3	9.0	2	5.8	2	5.3	3	7.5	4	10.1	5	14.2	7	17.7	2	5.5	3	7.7	0	0.0
* SEX Male	377	18.3	349	16.9	241	11.6	237	11.2	270	12.7	221	10.2	266	12.1	268	12.0	240	10.4	243	10.4	276	11.9	256	11.0	247	10.4	220	9.5	207	8.4
Female	242	11.0	191	8.7	168	7.6	190	8.5	163	7.2	144	6.3	162	6.9	198	8.3	164	6.7	141	5.7	174	7.0	186	7.5	170	6.7	143	5.8	163	6.3
** RACE																														
Non-HispWhite	252	8.1	223	7.1	112	3.6	134	4.0	147	4.3	135	3.9	145	4.5	165	5.1	138	4.2	125	3.8	136	4.1	120	3.6	104	3.1	99	3.0	86	2.6
Non-HispBlack	276	28.1	238	23.7	192	15.4	210	16.5	218	16.9	180	16.5	218	19.6	235	20.7	186	16.0	188	16.0	230	19.1	201	16.4	195	15.4	162	13.7	158	13.4
Hispanic	12	18.5	22	31.1	3	3.9	3	2.1	3	2.0	17	10.9	11	10.9	25	23.4	12	10.6	17	13.6	20	16.0	24	18.3	25	17.5	22	17.6	32	25.6
Asian	79	122.9	57	79.4	75	94.5	70	43.1	70	41.2	46	25.9	63	57.5	66	56.4	68	54.6	54	40.9	65	46.5	95	64.5	93	57.3	75	53.7	94	68.8
Other					4	10.0	2	3.1	2	3.0	1	1.5	11	22.4					3	5.2			2	3.3	0	0.0	5	8.6	0	0.0
* AGE 0-14	31	3.4	13	1.4	7	0.8	8	0.9	20	2.2	17	1.9	21	2.3	18	1.9	26	2.7	14	1.4	28	2.7	20	1.9	25	2.4	18	1.8	25	2.3
15-34	126	8.2	104	6.8	118	7.8	113	7.4	98	6.4	64	4.1	104	6.8	120	7.8	109	7.1	114	7.4	128	8.4	107	7.1	100	6.8	90	5.7	97	6.5
35-64	286	20.7	271	19.2	167	11.6	191	12.9	185	12.4	157	10.3	180	11.4	198	12.3	146	8.9	159	9.5	203	11.8	184	10.4	176	9.8	143	8.4	150	7.8
65+	174	42.8	142	34.1	116	27.1	114	25.9	131	29.2	124	26.8	123	25.2	130	25.6	123	23.5	97	18.1	92	16.7	131	23.3	114	19.8	112	21.6	98	17.4
**Foreign-Born																							128	40.8	143	45.6	139	44.3	167	53.3

Source: Maryland Division of Tuberculosis Control

* 1990-1995 Rates based on yearly Maryland population estimates, Maryland Office of Planning.

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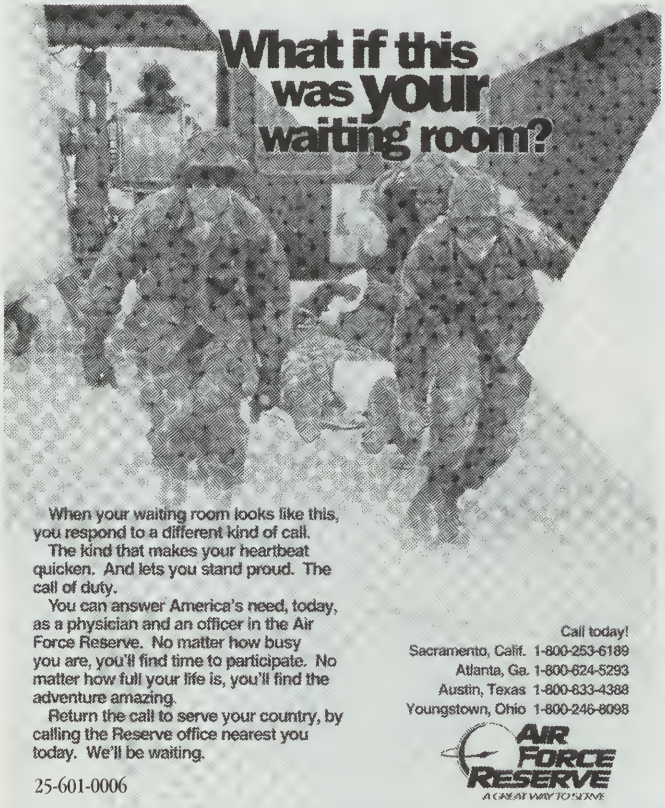
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Should the elderly just say no to hypnotics? Disturbed sleep, particularly insomnia, is a common complaint among the elderly, and some studies indicate that those aged 65 and older may account for up to 40% of sedative-hypnotic prescriptions. Although the short-term efficacy of such medications is well established in younger patients, there are little data demonstrating their effectiveness in the elderly. Recently reported results of a 6-month observational study of 145 elderly nursing home residents suggest that **sedative-hypnotic use may have little effect on the presence or absence of sleep complaints in this population.** Using logistic regression analysis, **investigators found no relationship between decreased use of sedative-hypnotics and worsened sleep or between their increased use and improved sleep** (*Clin Pharmacol Ther* 1996;59:83–92).

Can we talk? Patients' satisfaction with a physician may be linked to the physician's discussing health education topics with them. After analyzing the characteristics of 5066 patients who responded to a questionnaire, California investigators believe their study confirms that **patients are more likely to be satisfied when the physician pays attention to what the patient says and when the physician provides some form of health education** (*J Fam Pract* 1996;42:62–68).

Although acute myocardial infarction (AMI) does not discriminate between the sexes, treating physicians may be more likely to delay initiation of thrombolytic therapy when the patient is a woman. In a cohort of 328 emergency department patients who received thrombolytic therapy following one electrocardiogram that was diagnostic of AMI, the 88 women experienced a mean 23-minute delay to treatment initiation compared with the men. **The discrepancy was not accounted for by age, race, time of day, medical history, sex of the physician, type of thrombolytic agent, hospital, or triage category.** The investigators speculate that assumptions by nurses and physicians regarding the prevalence of AMI in women may lead to subtle delays in diagnostic and therapeutic interventions (*Ann Intern Med* 1996;27:8–15).

If the kids are growing up too fast, check their heads for hormones. Of 102 children aged 5 months to 14 years who were **evaluated for precocious puberty, 8** (7.8%) **were** found to be **using hair preparations that contained hormones or placental extract.** One boy aged 8.7 years had complete regression of breast development within 2 months after discontinuing the hormone-containing product (follow-up data were not available for the other precocious children). The authors conclude that exogenous exposure to hormones in hair care products should be considered in the differential diagnosis of early sexual development (*Mil Med* 1995;160:828–630).

Results of the first double-blind, randomized comparison of pharmacotherapies **for managing delirium in hospitalized AIDS patients** confirm that **low doses of either a high-potency (haloperidol) or a low-potency neuroleptic (chlorpromazine) are effective.** Improvement occurred within the first 24 hours of treatment. Study patients who received a benzodiazepine (lorazepam) alone did not improve and in fact showed increased cognitive impairment. Neuroleptic treatment was not associated with a significant increase in patients' extrapyramidal symptoms (*Am J Psychiatry* 1996;153:231–237).

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Stormy weather. According to data from the Centers for Disease Control and Prevention, **many of the deaths attributable to Hurricane Opal** (which caused extensive damage in Florida, Alabama, Georgia, and North Carolina last October) **occurred** in inland counties **after the hurricane had been downgraded to a tropical storm.** The CDC states that this suggests people in those areas may not have recognized or been fully informed about the risks associated with severe storms. Several deaths were associated with motor vehicle use during or after the storm; others occurred after the storm during surveying or clean-up activities. Thus, emergency notifications should stress the persistent risks of environmental hazards (e.g., downed trees and power lines) even after a storm has passed (*MMWR Morb Mortal Wkly Rep* 1996;45:32–38).

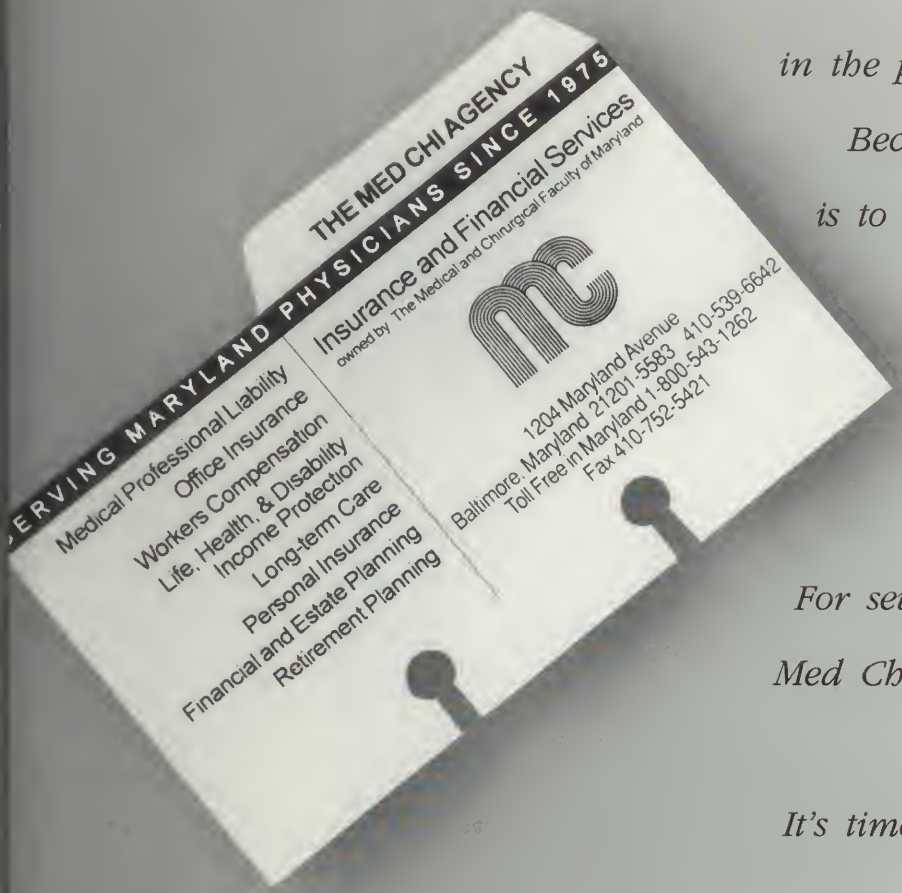
Warming up. An evaluation of blood loss and transfusion requirements in patients undergoing unilateral total hip arthroplasty supports in vitro evidence that **perioperative hypothermia may aggravate surgical bleeding** (*Lancet* 1996;347:289–292). Investigators randomly assigned 30 patients to normothermia (core temperature maintained near 36.5°C) and 30 patients to mild hypothermia (core temperature allowed to decrease to about 35°C) during surgery. They found that less than 2°C perioperative core hypothermia increased blood loss approximately 500 mL. They conclude that **maintaining normothermia during surgery may reduce blood loss and the need for allogenic blood.**

The Agency for Health Care Policy and Research offers an instant fax line (301-594-2800). For the price of a phone call, you can obtain single copies of AHCPR's practice guidelines, each of which has a guideline overview, a quick reference guide for clinicians, and consumer's guides in both English and Spanish.

The golf swing connected to the rib bone. A retrospective case review (*Am J Sports Med* 1996;24:118–122) suggests that **overuse injuries in golfers may include stress fractures along the posterolateral aspect of the ribs.** The 4th to 6th ribs appear to be the most common fracture site, but other ribs may be involved. In the 19 patients reviewed, 9 had fractured more than 1 rib; of these, 2 had fractured 5 ribs. Although plain radiographs were usually diagnostic, bone scintigraphy was required for diagnosis in three patients. The correct diagnosis was delayed more than six months in two patients who were originally misdiagnosed as having back strains.

Crohn disease in children may be mistaken for abuse. The authors of three case reports (*Pediatrics* 1996;97:272–274) point out that heightened awareness of child sexual abuse has increased the likelihood that abuse will be considered the cause of any abnormalities found on perianal examination. Nevertheless, they state that a differential diagnosis must be developed for such findings, including a thorough history, a growth and development evaluation, and a thorough physical examination that may include biopsies to rule out other causes of perineal and perianal disease. In such cases, mistaken diagnoses can have serious medical and psychosocial implications.

Patients mite (sic) be wearing their allergens. A study from the department of medicine at the University of Sydney and the Royal Prince Alfred Hospital (*J Allergy Clin Immunol* 1995;96:999–1001) indicates that personal clothing may be a potential source of dust mite allergen. At least half the items tested (suits, shirts, sweaters, jackets, skirts, trousers) contained live mites, but the authors speculate that the frequency of colonization could easily be higher because they tested only about 2% of the clothing surface area. Clothing washed or dry-cleaned during the last month tended to have lower allergen levels than less frequently cleaned clothing (e.g., woolens). The authors recommend that **for patients who are allergic to mites, criteria for choosing clothing should include the need for regular washing, preferably in hot water.**



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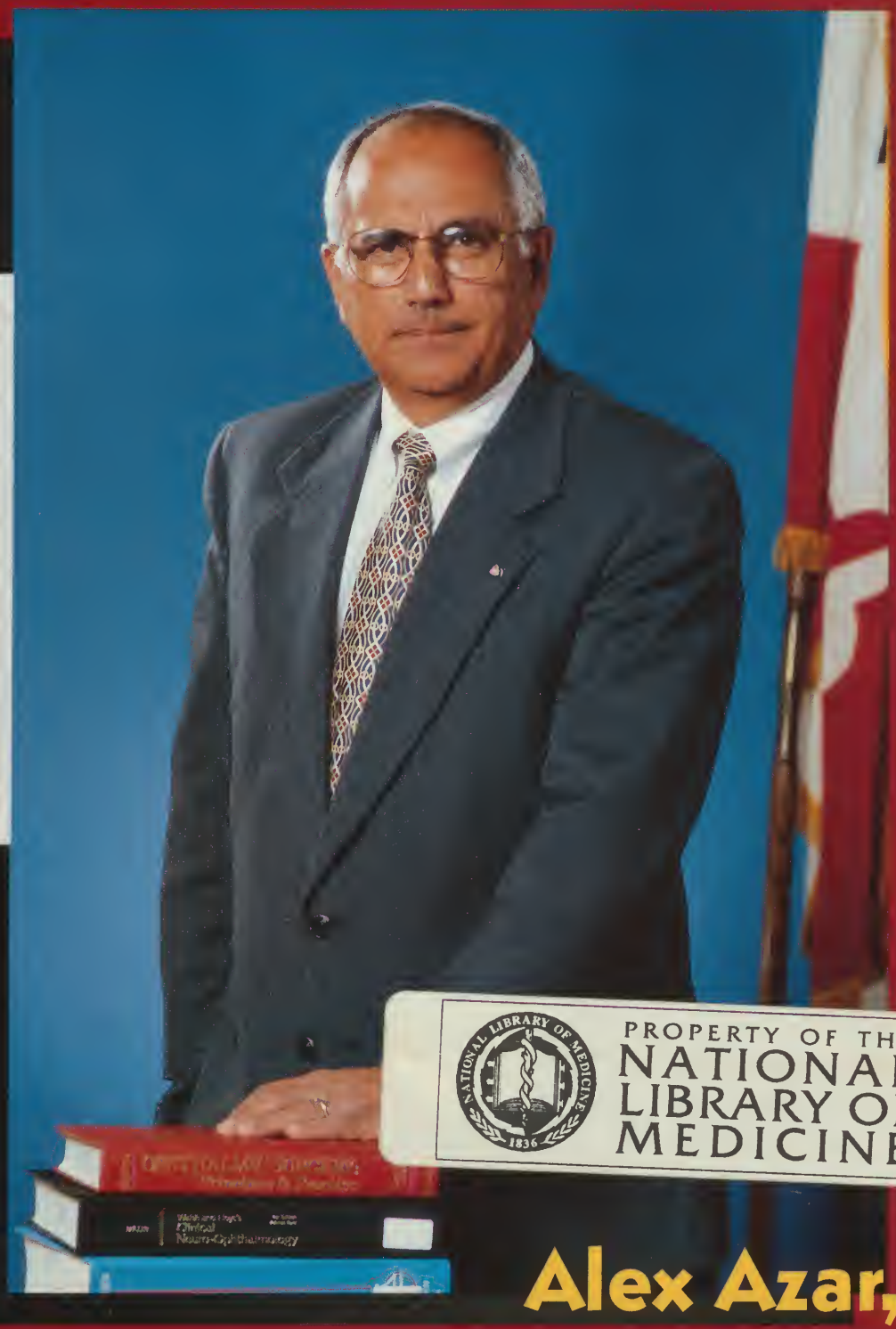
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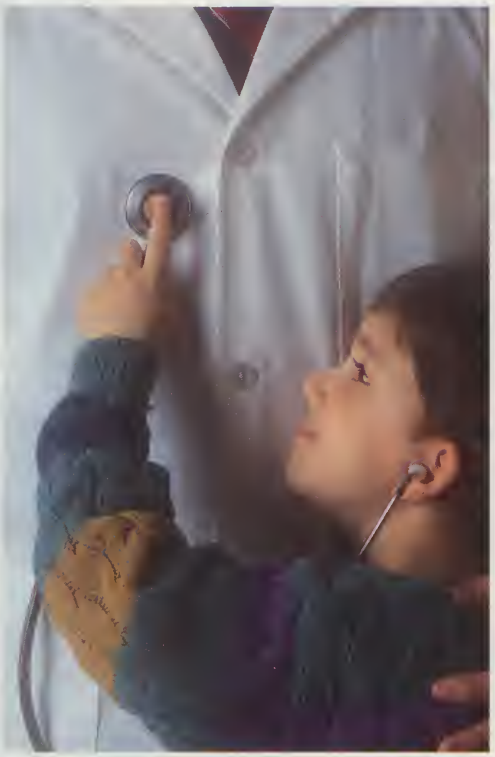
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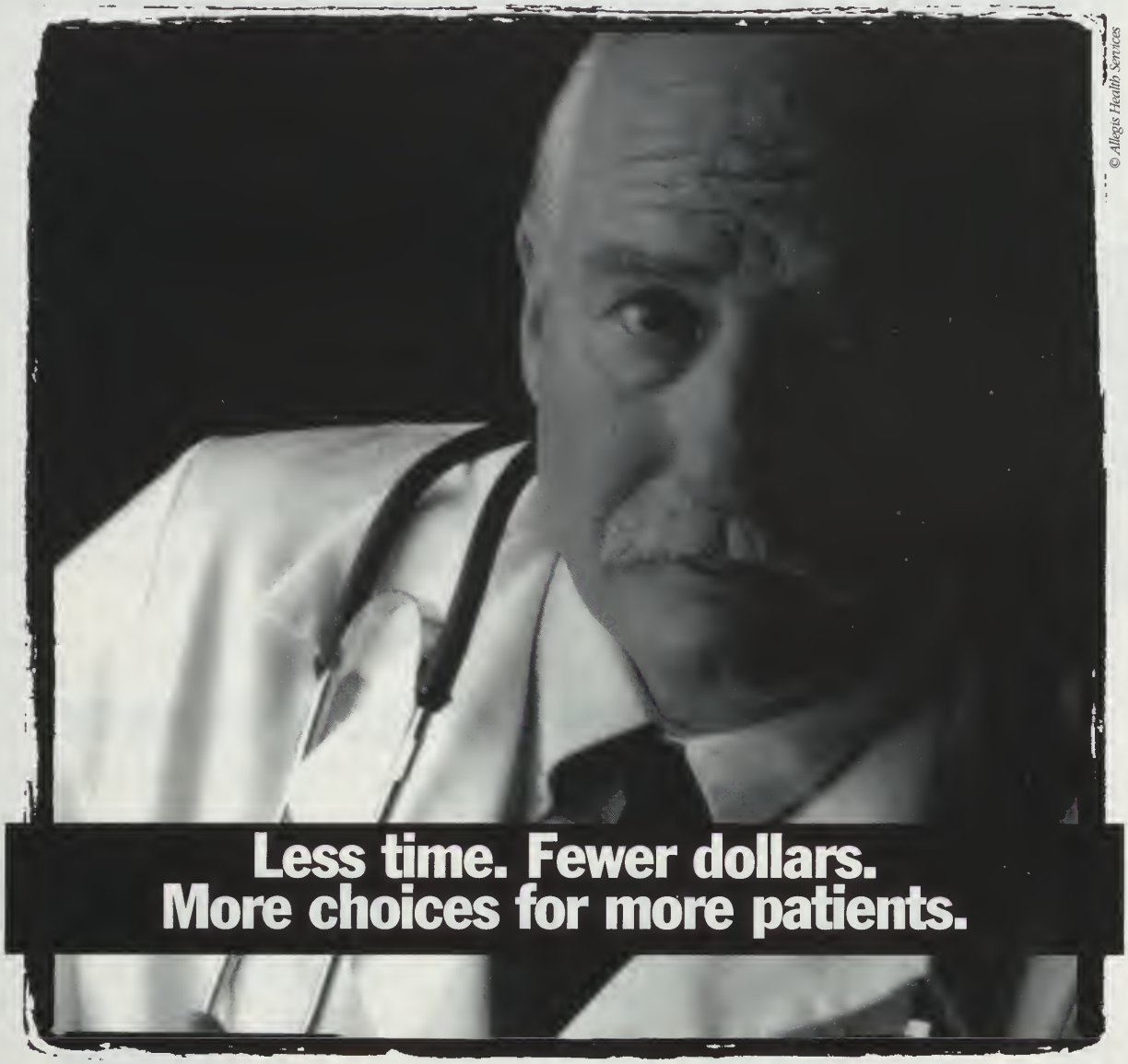
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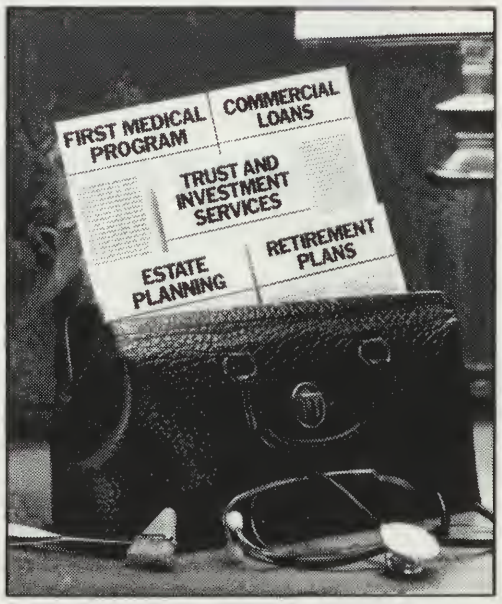
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Subcommittee on Complementary Medicine meeting set for May 22

The first meeting of the Subcommittee on Complementary Medicine will be held Wednesday, May 22, at 7:00 p.m. in the Krause Room at Med Chi. Speaker Ronald Parks, M.D., M.P.H., will discuss the use and benefits of nutritional interventions in his practice of complementary medicine and psychiatry. Dr. Parks graduated from the University of Maryland School of Medicine, is board certified in psychiatry, and completed residencies in internal medicine, psychiatry, and preventive medicine at George Washington University, University of Maryland, and UCLA, respectively.

The subcommittee serves to foster awareness and knowledge of the diverse techniques being used in complementary medicine. At each meeting a speaker presents a brief overview of his or her area of expertise, followed by a question and answer/discussion period among the attendees. Med Chi members, their colleagues, and other health care professionals are cordially invited to attend. The meeting will convene immediately after the Maryland Acupuncture Society meeting, which is scheduled to begin at 6:30 p.m. in the same location. If you wish to attend or have questions, call Med Chi's Steve Jones at 410-539-0872 or 800-492-1056, or Hiroshi Nakazawa, M.D., at 410-644-1502. Light refreshments will be served.

Med Chi seeks USP delegate

Med Chi's representation on the 1990-1995 quinquennium of the United States Pharmacopeia (USP) officially ended last year. Med Chi now needs to appoint a new delegate to the USP Convention for the next term. Appointees will serve until the year 2000. Potential delegates should be knowledgeable about the viewpoints and activities of Med Chi's constituents to help keep USP informed of local interests; they should also be committed to keeping the Med Chi membership apprised of USP activities. Some of the objectives accomplished during USP's last quinquennium included the creation of a national drug and therapeutic data base through the merging of the AMA drug evaluation (DE) and USP drug information (DI) data bases, in addition to the renewal of ongoing communications with state medical society leadership and members. If you are interested in applying for the post, contact Med Chi's CEO, Angelo Troisi, at 410-539-0872 or 800-492-1056.

Maryland Department of Health and Mental Hygiene presents satellite conference

DHMH is presenting a satellite conference entitled *Epidemiology and Prevention of Vaccine-Preventable Diseases* on May 31 and June 7, 14, and 21. The live, interactive conference is CME and CEU accredited and is being offered again due to popular demand. The program, taught by medical epidemiologist William L. Atkinson, M.D., of the Centers for Disease Control and Prevention, will be broadcast nationally to nurses, physicians, and others who manage and work in immunization, communicable disease, and/or infection control programs. The four modules, each 3.5 hours long, will provide updates on vaccine-preventable diseases, vaccine management and safety, and standard immunization practices. Participants who pass the final examination and complete a course evaluation can receive 14 hours of CME credit, 1.4 CEUs, or 13.6 nursing contact hours, pending approval of course for accreditation. For more information, contact Sandra Kash at DHMH, 410-767-6679.

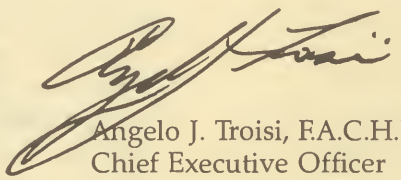
YouthWorks '96 requests help for summer employment

Due to Congress' elimination of the summer jobs program, Baltimore Mayor Kurt Schmoke has asked that leaders in business, city/state agencies, religious organizations, etc., join in a citywide effort to put 3,000 teens to work this summer. Since the health care industry is the largest employer in the Baltimore metropolitan area and

can provide youth with valuable learning experiences, the mayor has asked the health care community to contribute 300 jobs or any combination of jobs and money. You can help by hiring two or more city youth to work in your hospital/organization or by donating money to YouthWorks/Baltimore City Foundation. If you are interested in helping Baltimore's youth, call Karen Sitnick at 410-396-6722.

BPQA establishes verification procedure

As of January 1, 1996, the Board of Physician Quality Assurance (BPQA) began primary source verification of the medical educations of all physicians who apply for a first-time Maryland license to practice medicine. The Licensing and Certification Administration (LCA) has verified that the procedure used guarantees truth and accuracy of this information. Therefore, for these physicians, hospitals are no longer required to perform this activity. If you have any questions, please call Mr. James Ralls, BPQA program administrator, at 410-764-4970.



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Officer

Summary of the 1996 Legislative Session

The 1996 Maryland General Assembly adjourned at midnight Monday, April 8, after having considered 2,299 separate bills. Maryland remained in the national forefront of legislative reform directed at the growing HMO industry. Due to the agreement between Med Chi and the Maryland Association of HMOs that was endorsed in January by the Med Chi House of Delegates, the two organizations supported certain joint initiatives, all of which now await the governor's signature. House Bill 1374 (Delegate Barve, et al) and Senate Bill 624 (Senators Astle, Dorman, and Madden) were companion bills regulating HMOs' relationships with doctors in several significant ways:

- Gag rules in HMO physician contracts are illegal as of October 1 (fourth state in the nation to do so).
- Indemnification clauses requiring physicians to indemnify HMOs for the HMO's acts or coverage decisions are illegal as of October 1 (first state in the nation). HMOs will disclose to physicians the criteria used to make panel selection decisions and also provide physician-specific practice profiles in certain circumstances (one of the first states in the nation).
- Withholds are abolished in all payment systems (first state in the nation).
- A legislative task force to include 3 Med Chi representatives will meet this summer to discuss improvements in patient/doctor grievance and appeal procedures for further legislation in 1997.
- In addition, House Bill 1207 (Delegate Hammnen) and Senate Bill 728 (Senator Della) passed, which requires the secretary of DHMH to create a system for single primary source verification for physicians to be operated by private entities qualified by DHMH. The legislation specifically references Med Chi. The legislation also permits DHMH to give "deemed status" to NCQA (a national accrediting body) that reviews HMOs.
- House Bill 1142 (Delegate Bonsack) and Senate Bill 738 (Senator Teitelbaum) were Med Chi-supported initiatives to create a remediation track within the state Board of Physician Quality Assurance (BPQA). This bill would allow physicians under review by the BPQA to enter into a nonpublic agreement for remedial action as opposed to discipline. Such remedial action would not be considered discipline and it would not be reportable to credentialing entities such as HMOs, hospitals, or the National Practitioner Data Bank. This bill awaits

the governor's signature. However, BPQA's bill (House Bill 797), which was a major rewriting of the BPQA law and which was opposed in part by Med Chi, was given an unfavorable report by the House Environmental Matters Committee.

The mothers and infants 48-hour bill was also approved with the decision on staying in the hospital to be that of the mother after consultation with the physician. Med Chi had supported the physician as the decision maker consistent with the model bill of the American Academy of Pediatrics. However, the legislature decided to give the final decision to the mother, but did provide that any physician would be protected from an insurer or hospital if they sought a longer stay because of a particular clinical situation.

Emergency room doctors were successful with the passage of House Bill 859 (Delegate Love). The legislation clarified existing provisions of the law concerning emergency room payment and also provided that emergency room physicians would be paid a "screening fee" by HMOs for required screenings under federal law. However, the screening fee will only be paid through April 1, 1997, at which time the legislature will revisit the issue.

Medicaid moved front and center in the concluding days of the session as House Bill 105/ Senate Bill 750 sought to provide the framework for the secretary of DHMH to move the Medicaid population into managed care organizations (MCOs). A Med Chi amendment ensured that a "historic provider" would be guaranteed a position on a Medicaid MCO if the "historic provider" had a "demonstrated history of serving Medicaid recipients. Med Chi also successfully argued for the inclusion of the protections given physicians in the Patient Access Act last year to be required of all Medicaid MCOs.

Med Chi was also successful, along with other provider groups, in securing language to prohibit the competitive bidding of the Medicaid population with the possible result that doctors would no longer be able to serve their patients if their new HMO was not the winning bidder. Finally, a Med Chi amendment in the last day Conference Committee deliberations was accepted to regulate the number of Medicaid patients that might be assigned to a doctor without his or her consent.

The main legislative proposal of the Maryland Hospital Association was Community Health Networks (House Bill 1065, Hurson)/(Senate Bill 519, Dorman). These bills created a new category of regulated health network that would be able to compete with HMOs in direct contracting with employer groups for health insurance. Senate Bill 519 passed the Senate in a version that would have allowed hospital networks, but not physician networks, and was subsequently given an unfavorable report by the House Economic Matters Committee.

The 1995 study of the Funk Commission resulted in the introduction of House Bill 264/Senate Bill 216 by the governor. These bills were entitled the "Automobile Insurance Rate Reduction Act of 1996" and were designed to reduce automobile insurance rates, particularly in high claims regions like Baltimore City. However, there were several onerous provisions including separate fee schedules for "soft tissue" injuries as well as separate practice parameters to be developed. These provisions were successfully opposed by Med Chi and in the end the only provisions of the bills that passed were anti-fraud measures designed to crack down on lawyers and health care providers who were engaged in unethical activity. Med Chi had always supported these provisions of the bill and it will likely be signed into law by the governor.

Mandated benefits bills were filed to require coverage of outpatient rehabilitative services (House Bill 60); treatment for autism (House Bill 358/Senate Bill 315); diabetes equipment, supplies, and training (House Bill 227/Senate Bill 49); osteoporosis

prevention and treatment (House Bill 192); prostate specific antigen test (Senate Bill 497); nicotine patches (House Bill 518); and reconstructive breast surgery (House Bill 119/Senate Bill 181). Only the reconstructive breast surgery bills passed (e.g., cosmetic reconstruction of breast after mastectomy) and the other bills will be studied over the summer by the House Economic Matters Committee. Med Chi's position on all mandates is that they should be studied in a comprehensive fashion rather than on an item-by-item basis as many of these mandated benefits are laudable and will be cost effective. However, the present system for considering different mandates in different bills is ultimately counterproductive.

The following is a snapshot of other issues:

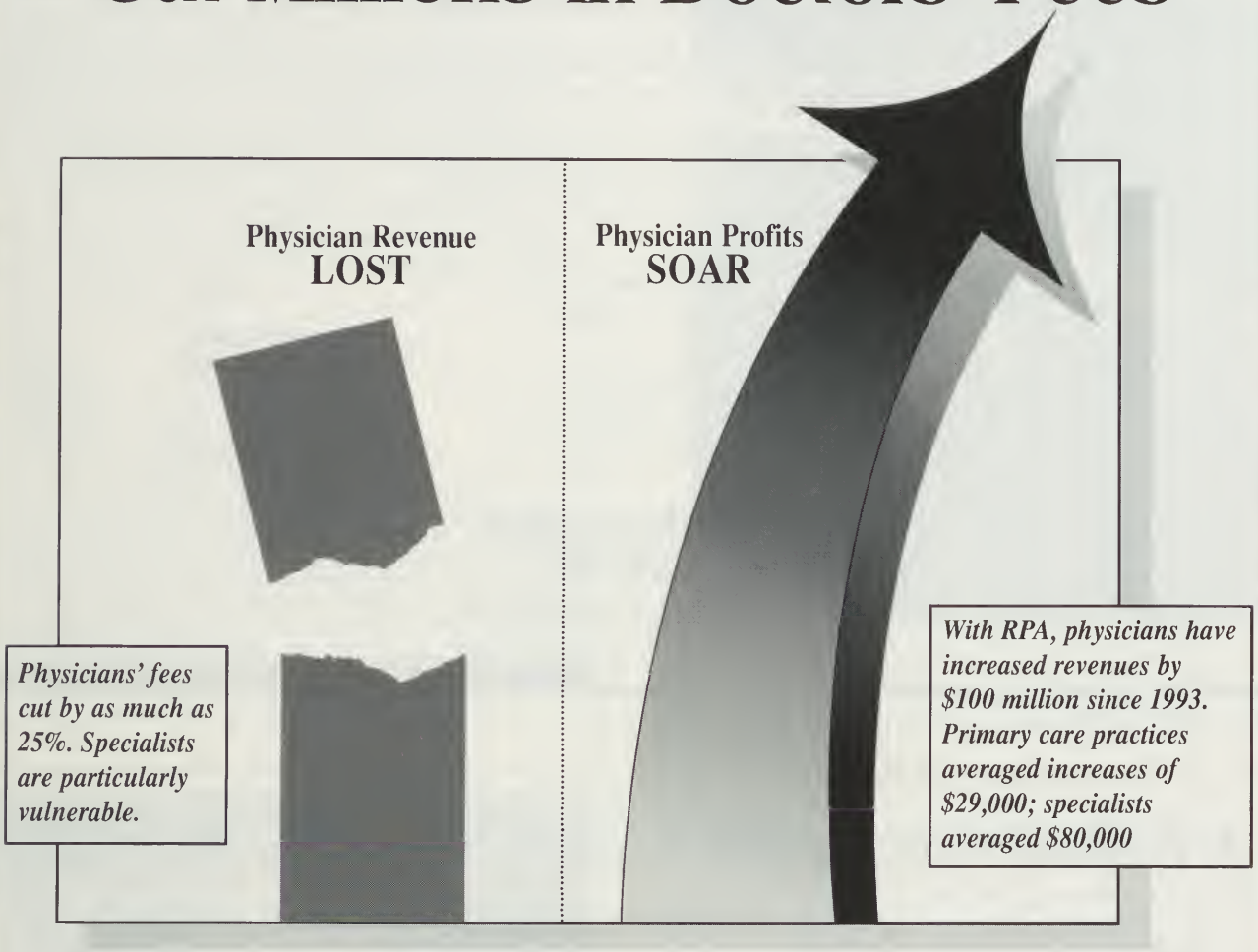
- Senate Bill 607 to relax the restraints for the award of punitive damages in products liability lawsuits (including medical products such as heart valves) was opposed by Med Chi and received an unfavorable report. This bill, promoted by asbestos plaintiffs' lawyer Peter Angelos, also the principal owner of the Baltimore Orioles, even received an unfavorable editorial from the *Wall Street Journal.*
- House Bill 836 to eliminate the contributory negligence defense in all actions including medical malpractice was opposed by Med Chi and received an unfavorable report.
- Senate Bill 532 to allow nurse psychotherapists to independently prescribe medications passed the Senate by a narrow margin but failed in the House of Delegates.
- Bills to regulate HCACC data collection were unsuccessful but promise to return in 1997. Med Chi and AMA's position of supporting patient consent prior to the release of confidential medical information resulted in a 22-23 losing vote on the floor of the Senate. The Environmental Matters Committee killed the companion bill sponsored by Delegate James Kelly and 19 other delegates. However, it appears that this will be a major issue in 1997.
- Senate Bill 701 and House Bill 1070 to allow Maryland Blue Cross and Blue Shield to change provider rates without prior approval of the Insurance Commissioner passed after the Insurance Commissioner supported the proposal. Blue Cross will not be treated the same as the other insurers in the state.
- Senate Bill 392 (Senator Trotter) and House Bill 863 (Delegate Goldwater) to allow HMO patients to see "in network" OB-GYNs without first securing the referral of the primary care gatekeeper was approved.
- The governor's gun control legislation, which was supported by Med Chi and which limits handgun purchases to one per month, passed. This is similar to the law passed last year in Virginia.
- Med Chi supported legislation to limit tobacco vending machines; it passed the House of Delegates but was never considered by the Senate prior to adjournment.
- House Bill 891, which required HMOs to provide employers with specific forms to be given to their employees concerning their right to choose a point of service option under last year's Patient Access Act, passed on the final day.

Joseph A. Schwartz, III, Esq.

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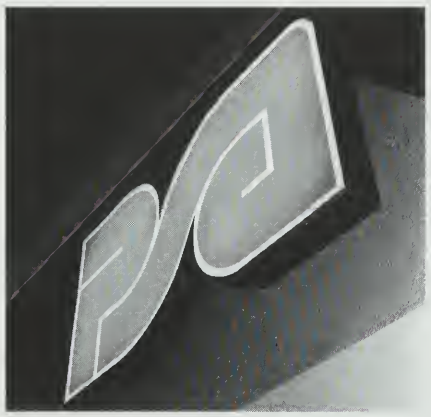
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LETTERS TO THE EDITOR

Thanks for the memories

I want to compliment Mary Ann Ayd and the *Maryland Medical Journal* staff for a job well done: the November 1995 special portrait and tribute to the physicians from Maryland in World War II. Being snowbound in January was a great opportunity to peruse the entire issue. I must say, the pangs and memories of those years were deeply stirred. I enjoyed the epilogues; life has moved on. I have been surprised by the many colleagues who "didn't know you were this or did that" or who just read the article. It has been kind of fun. I thank [Dr.] Charlie Wiles—I assume he was responsible for my inclusion in the issue. It was sort of gratuitous, since I adopted Maryland after the war.

The concept for the issue was unique, timely, and good for the *Maryland Medical Journal*. My congratulations.

EVERARD F. COX, M.D.
Hampstead, Maryland

Dr. Cox, former chief of surgery at University of Maryland Medical Center and Shock Trauma, was awarded the Distinguished Flying Cross for heroism and extraordinary achievement as the pilot of a Douglas dive bomber during the attack on Rabaul, November 5, 1943. His story appears on pages 881-882 of the November 1995 MMJ. *I, too, would like to thank Dr. Wiles, director of the multiple trauma intensive care unit at the R Adams Cowley Shock Trauma Center, for helping us obtain the interview with Dr. Cox on which the article was based.*

MARY ANN AYD

Thanks for the malpractice advice

I had the pleasure of reading the article *Anatomy of a medical malpractice lawsuit* (*Md Med J* 1996; 45:108–115). If you have more articles like this, you will have a lot more readers. Medical malpractice cannot be ignored. An article like this is interesting, useful, and enlightening. I wish you would have one or two articles like this in every issue, since this is a problem we have to face everyday in our practice. It shows that you care.

CARLOS C. SERA, M.D., F.A.B.O.G.
Bowie, Maryland

LETTERS TO THE EDITOR

A simple alternative to quinine for nocturnal muscle cramps

Painful cramping of the anterior or posterior group of leg muscles at rest is a frequent complaint among the elderly. Although the causal mechanism of the ailment has not been completely elucidated, any local muscle abnormality that can produce pain sends impulses to the spinal cord to cause reflex spasm. Since such isolated contractions stimulate essentially the same reactors, the end result is a full-blown tetanic cramp.

Quinine 200-300 mg taken before retiring has been reported to relieve and prevent these occurrences. Justification for its use is that the drug acts on skeletal muscle by direct action on the muscle fiber, decreasing the excitability of the motor end-plate and affecting the distribution of calcium. In this sense, the actions of quinine resemble those of curare.

Although quinine has been thought at times to be the best pharmacologic agent available for this malady, the results have not always been satisfactory. The deleterious side effects from the use of the drug also suggested that its therapeutic application be abandoned. In February 1995, the U.S. Food and Drug Administration ruled that any over-the-counter drug product containing quinine for the treatment and/or prevention of nocturnal leg cramps is not safe or effective. The FDA further ruled that if so sold, the medication has been mislabeled and the manufacturers are subject to legal action and penalty.

Loss of this supposedly good therapeutic substance is not calamitous. Relief from the cramp can be obtained in a simple manner. If the anterior compartment is affected, extend the foot by ventriflexion; the pain stops immediately. The same is true of the posterior compartment when the foot is dorsiflexed. Although the pain may recur, quinine need not be taken on a nightly basis and the side effects from its use are avoided.

Joseph M. Miller, M.D.
Timonium, Maryland ■

Letters To The Editor

The editorial board of the *Maryland Medical Journal* welcomes comments, criticisms, recommendations, and observations from all its readers. Please submit letters to

Editor
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Thomas E. Finucane, M.D., an associate professor of medicine at The Johns Hopkins University School of Medicine, is the author of an editorial entitled "Choosing Resuscitation Late in Life: Problems With the Paradigm" published in *The American Journal of Medicine* (1996;100:126–127).

F. M. Baker, M.D., M.P.H., is the author of a study that evaluated the first 13 consecutive referrals to a newly established geriatric psychiatry research division at a community mental health center in Baltimore. Although the referring primary diagnoses were confirmed in 54% of patients (7 of 13), an average of three new diagnoses not previously considered were made for each patient. Results support the hypothesis that older persons with psychiatric illness may have been misdiagnosed at a time of less diagnostic rigor (*J Natl Med Assoc* 1995;87:872–876). Dr. Baker is an associate professor of psychiatry at the University of Maryland Medical Center.

Ari Leppäniemi, M.D., Raluan Soltero, M.D., David Burris, M.D., and Emmanouil Pikoulis, M.D., are among the authors of a study to evaluate the efficacy of an oxygen-carrying solution in early resuscitation of hemorrhagic shock induced by penetrating vascular injury. (*The Journal of Trauma: Injury, Infection and Critical Care* 1996;40:242–248). They conclude that early resuscitation with low-volume hemoglobin is effective in restoring tissue perfusion and improving survival in uncontrolled hemorrhagic shock. Drs. Leppäniemi, Soltero, Burris, and Pikoulis are from the department of surgery at the Uniformed Services University of the Health Sciences F. Edward Hèbert School of Medicine.

Georgia B. Vogelsang, M.D., Ph.D., is among the authors of a study evaluating mismatches of minor histocompatibility antigens between HLA-identical donors and recipients and the development of graft-versus-host disease (GVHD) after bone marrow transplantation. The results indicate that such mismatches can cause GVHD in adult recipients of allogeneic bone marrow from HLA-identical donors. Prospective HA-1 typing may improve donor selection and identify recipients who are at high risk for GVHD (*N Engl J Med* 1996;334:281–285). Dr. Vogelsang is an associate professor of oncology at The Johns Hopkins University School of Medicine.

Eric M. Janis, M.D., Marshall J. Glesby, M.D., Lisa A. Carey, M.D., Linda M. Mundy, M.D., and Richard E. Chaisson, M.D., are among the authors of a study to evaluate the prevalence of tuberculin skin test reactivity, anergy, and HIV infection in a group of hospitalized patients in an area where both tuberculosis and HIV infection are prevalent. The results indicate that routine tuberculin skin testing for high-risk patients on admission to the hospital is useful for identifying patients who might benefit from prophylaxis to help control the spread of tuberculosis (*Am J Med* 1996;100:186–192). Dr. Janis is a postdoctoral fellow in the cardiovascular, molecular biology, and genetic divisions; Drs. Glesby and Mundy are postdoctoral fellows in the infectious disease division; Dr. Carey is a postdoctoral fellow at the oncology center; and Dr. Chaisson is an associate professor of medicine, epidemiology, and international health, and director of the AIDS Service at The Johns Hopkins Medical Institutions.

C. Maximillian Schmidt, M.D., Karen M. Horton, M.D., James V. Sitzmann, M.D., Bronwyn Jones, M.D., and Theodore Bayless, M.D., are the authors of a report describing a simple radiographic test to predict frequency of bowel movements and measure spasticity after surgical treatment of ulcerative colitis or familial polyposis. The addition of quantitative measurements to the radiographic test gives useful information about pouch performance, and the data imply that spasticity, rather than actual pouch volume, is a major determinant of bowel movement frequency (*Dis Colon Rectum* 1996; 39:66–73). Dr. Schmidt is a postdoctoral fellow in the department of surgery, Dr. Horton is a postdoctoral fellow in the division of radiology and radiologic science, Dr. Sitzmann is an associate professor of surgery, Dr. Jones is a professor of radiology, and Dr. Bayless is a professor of medicine at The Johns Hopkins University School of Medicine.

Ramesh K. Khurana, M.D., chief of the division of neurology at The Union Memorial Hospital in Baltimore, is the author of a report on a series of eight patients with orthostatic intolerance and orthostatic tachycardia who underwent detailed autonomic investigations and longitudinal follow-up. Results indicate the syndrome is heterogeneous in terms of onset, clinical manifestations, laboratory studies, and outcome (*Clin Auton Res* 1995;5:12–18).

Guohua Li, M.D., Dr. P.H., is the lead author of a historical cohort study of crash and violation experience of pilots involved in prior commuter and air taxi crashes. The results indicate that pilots' prior crash and violation records are associated with an increased risk of being involved in a commuter aircraft or an air taxi crash (*Aviat Space Environ Med* 1995;66:1131–1135). Dr. Li is an assistant professor of emergency medicine at The Johns Hopkins University School of Medicine.

Roger S. Blumenthal, M.D., Josef Coresh, M.D., Ph.D., and Lewis C. Becker, M.D., are among the authors of a study to test the hypothesis that exercise thallium scintigraphy would better predict future clinical coronary heart disease (CHD) in a higher-risk population with a high prevalence of occult CHD. They concluded that exercise thallium scintigraphy appears to be useful in the risk assessment of asymptomatic siblings of patients with premature CHD, particularly in male siblings aged 45 or older (*Circulation* 1996;93:915–923). Dr. Blumenthal is an assistant professor of medicine and Dr. Becker is a professor of medicine with a joint appointment in radiology at The Johns Hopkins University School of Medicine. Dr. Coresh is an assistant professor of epidemiology at The Johns Hopkins University School of Hygiene and Public Health.

John L. Flowers, M.D., Scott M. Graham, M.D., Marcos A. Ugarte, M.D., Walter M. Sartor, M.D., Aurelio Rodriquez, M.D., David R. Gens M.D., Anthony L. Imbembo, M.D., and Donald S. Gann, M.D., are the authors of a study indicating that flexible fiberoptic endoscopy seems to be a safe and effective method for both detection and exclusion of esophageal trauma (*The Journal of Trauma: Injury, Infection, and Critical Care* 1996;40:261–266). Dr. Flowers is an assistant professor of surgery and director of laparoscopic surgery; Dr. Graham is an assistant professor of surgery and director of surgical endoscopy; Dr. Rodriquez is an associate professor of surgery; Dr. Gens is an assistant professor of surgery, Dr. Imbembo is a professor of surgery and chairperson of the department of surgery; and Dr. Gann is a professsor of surgery at the University of Maryland Medical Center.

Peter S. Creticos, M.D., Philip S. Norman, M.D., and N. Franklin Adkinson, Jr., M.D., are among the authors of a study to identify the role of allergen immunotherapy in treating asthma. The results, printed in the *New England Journal of Medicine* (1996;334:501–506), show that although immunotherapy for adults with asthma exacerbated by seasonal ragweed exposure had positive effects on objective measures of asthma and allergy, the clinical effects were limited and many were not sustained for two years. Dr. Creticos is an associate professor of medicine and Drs. Norman and Adkinson are professors of medicine at The Johns Hopkins University School of Medicine.

Peter E. Dans, M.D., and Alan T. Wright, M.D., are the authors of a study analyzing the effect of 1991 Maryland legislation that mandated screening mammography benefits. They conclude that simply mandating screening mammography without aggressive publicity and removal of other disincentives to its use is of limited effectiveness (*Radiology* 1996;198:657–660). Dr. Wright practices internal medicine in Hunt Valley, Maryland, and Dr. Dans is an associate professor of medicine at The Johns Hopkins University School of Medicine.

Margaret B. Rennels, M.D., is among the authors of a study to evaluate the safety and efficacy of high-dose rhesus-human reassortant rotavirus vaccines (RRVs). Results indicate the tetravalent RRV is highly protective against very severe, dehydrating rotavirus gastroenteritis (*Pediatrics* 1996;97:7–13). Dr. Rennels is a professor of pediatrics and clinical head of the division of infectious diseases at the University of Maryland Medical Center.

Andrew L. Dannenberg, M.D., M.P.H., is among the authors of a study of causation, incidence, and costs of traumatic brain injury in the U.S. military medical system. The authors concluded that military active-duty individuals are at increased risk for noncombat head injury. Prevention of head injury in military settings should focus on motor vehicle crashes, fist fights (assault), and falls (*The Journal of Trauma: Injury, Infection, and Critical Care* 1996;40:211–217). Dr. Dannenberg is a professor of environmental health sciences at The Johns Hopkins University School of Hygiene and Public Health.

What Your Patients
MAY BE READING

- "A Skeptic's Guide to Sports Medicine"
  Men's Health, April 1996
- "I Can't Ask My Doctor That! Answers to Your Most Embarrassing Questions and Tips on How to Be a More Assertive Patient"
  McCall's, April 1996
- "How to Pick Your Child's First Doctor"
  Parenting, April 1996
- "Exercise and Aging Update"
  Muscle & Fitness, May 1996
- "Perfect Health Pills. Are They the New Vice?"
  Marie Claire, April 1996
- "What Every Woman Needs to Know About Immunity"
  Self, April 1996
- "After the Rape"
  Glamour, April 1996
- "Coping With Urinary Tract Infections"
  Parents, April 1996
- "Beyond Despair. The Anatomy of Suicide"
  Cosmopolitan, April 1996
- "The New Breast Cancer Test"
  Good Housekeeping, April 1996
- "Lifting in Pain? Wrist Disease Can Become A 'Weighty' Problem"
  Muscle & Fitness, May 1996
- "7 Things You Must Do Now to Stay Healthy"
  Redbook, April 1996
- "The Dangers of Dieting"
  McCall's, April 1996
- "Should Your Child Get the Chicken Pox Vaccine?"
  Child, April 1996
- "Sex After Breast Cancer"
  Glamour, April 1996
- "Natural-Born Healers. Natural Cures For Men"
  Men's Health, April 1996
- "Asthma Update: New Treatments To Help Kids Breathe Easier"
  Working Mother, April 1996
- "Six Months To Live"
  Redbook, April 1996
- "Herbs and Healthy Lactation"
  Mothering, Spring 1996
- "Who Stole Fertility?"
  Psychology Today, March/April 1996
- "Gut Feelings. Getting the Proper Treatment for Heartburn and Ulcers Can Be Trickier Than It Seems"
  Self, April 1996
- "Watch Your Back! How to Make Back Pain Less Agonizing"
  Good Housekeeping, April 1996
- "Men and Osteoporosis"
  Muscle & Fitness, May 1996
- "Confessions of a Hypochondriac"
  Ladies Home Journal, April 1996
- "Is Your Medicine Safe? What Pharmacists Don't Tell You"
  Good Housekeeping, April 1996
- "Warning: The Surgeon General Has Determined Laziness May Be Hazardous To Your Health"
  Self, April 1996
- "11 Ways to Stretch Your Health Dollar"
  Glamour, April 1996
- "The Healing Power of Prayer. Can Prayer Cure What Doctors Can't?"
  McCall's, April 1996
- "When Not To Go To the ER"
  Good Housekeeping, April 1996
- "Best Doctors in America"
  American Health, March 1996

Call for Instructive Case Reports

The editors of the *Maryland Medical Journal* believe all practicing physicians—generalists and specialists alike—are a fertile source of instructive, experienced-based clinical anecdotes. The most memorable anecdotes illustrate the art as well as the science of medical practice; they teach a lesson that goes beyond the "facts" of the case.

We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission Requirements

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

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The Editorial Board of the *Maryland Medical Journal* currently seeks original articles addressing topics related to

- Evidence-based medicine: science or politics?
- Assistive technologies for people with disabilities
- Pre-surgery medical considerations (e.g., in elderly, pediatric, or psychiatric patients; questions before emergency surgery).

Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.

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Information for AUTHORS

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  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

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  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

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  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

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Checklist

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Alex Azar, M.D.: 1996–1997 president, Medical and Chirurgical Faculty of Maryland

His eyes suddenly brighten behind his glasses and a warm, irrepressible smile envelops his deeply tanned face. He sits back and thoughtfully muses about a poem his daughter recently sent him called "The Bridge Builder." With contemplative recollection, he tells the story of an old man who crosses a ravine only to stop on the other side and build a bridge. A passerby questions why the old man would build a bridge when he has already crossed the ravine. The old man replies that there are younger people following him who don't have as much experience as he and so he is building the bridge for them.



Dr. Azar examines a patient using some of the cutting-edge technology that has helped him to bring many innovative procedures to patients in the Salisbury area.

As he finishes telling the tale, incoming President Alex Azar, M.D., likens the old man's journey to his own pilgrimage through life and the experiences he has encountered as a physician. "My major goal for Med Chi is to build a bridge of health care compromise that our younger colleagues, patients, and others can cross, yet quality care must be its basis and foundation," explains Dr. Azar. "The minute we stop being the patient's advocate and sacrifice the quality of care, then we are not doing our job as an organization."

The compassion of his words is so profound that it's no wonder Dr. Azar built a very successful ophthalmology practice of thousands of patients in the Eastern Shore town of Salisbury. Having practiced medicine for two decades, Dr. Azar's philosophy—to ensure high quality health care while taking into account the cost of available procedures—is simple. Yet, the simplicity of his philosophy is welcome in this era of managed care.

With the onset of managed care, dramatic changes in the health care delivery system have left the face of medicine a bit contorted. As a physician, Dr. Azar believes strongly in his role to find solutions to the wrinkles that have spread across the practice of medicine. A member of the Governor's task force on community health networks, he is actively participating in the search for alternatives to combat the shifts managed care has introduced to the health care industry. Along with representatives from the labor, insurance, and hospital industries, and representatives from regulatory bodies and consumer groups, Dr. Azar has been working to set up community health networks.

The task force has made a recommendation to the Maryland legislature to allow physicians and hospitals, either singly or jointly, and other organizations to set up community health networks. These networks would actually have the power to market a package to industry without having to be a full-fledged insurance company. The task force's recommended proposal also allows provisions for risk. The amount of risk that each network wishes to assume would determine how much in total cash reserves the network would need. For instance, if a network of physicians wanted to deliver total health care to a community, then it would have to have the same cash reserves as an HMO or a full-fledged carrier. On the other hand, if a network wanted to assume risk for a very specialized segment of that population, it would require less in terms of reserves.

Dr. Azar believes if this law is passed it will allow providers to take risk on for themselves. He is also certain that eventually, as more and more providers

A Personal Look At The New President

Dr. Azar's father, Michael, immigrated to the United States from Lebanon at the age of 12, landing in the Lebanese community of Altoona, Pennsylvania. After losing a confectionary store during the Great Depression, the senior Azar moved to Johnstown, Pennsylvania, to work in the steel mills until he could save enough money to buy a grocery store. He also met and married a fellow Lebanese immigrant, Sadie, from south Jersey. They had two sons and a daughter.

Growing up, Dr. Azar recalls living a very modest lifestyle that did not allow for much extravagance. For instance, the Azar family did not even have a regular family doctor for Alex to see when he needed a physical for his college applications. Dr. Azar initially was interested in attending college to pursue the research side of medicine, this stemming from his desire to find a cure for family members who had suffered from cancer.

In pursuit of his goal, he earned his bachelor's and medical degrees from the University of Pittsburgh, where he graduated magna cum laude. Dr. Azar followed medical school with a brief stint in the Army as a general medical officer and afterward completed a residency in preventive medicine at Ohio State University (OSU). After his residency, he pursued work as an environmental researcher at DuPont, where he worked directly with the development of the gas permeable contact lens. Dr. Azar was offered the corporate medical directorship at DuPont, but decided at that point he wanted to get back to seeing patients. His work with the contact lens was the catalyst for his returning to OSU to complete a residency in ophthalmology.

Dr. Azar's decision to relocate to Salisbury originated with a discussion with another colleague about the town's needing another ophthalmologist. Of course, need was not the only reason for his relocation. He also found the people very friendly and nice, similar to his childhood hometown.

Yet, Dr. Azar's relationship with the people of Salisbury is one of mutual admiration. Evidence of his popularity is quite apparent in both his home and office. Hanging in the Azar home are two duck paintings by Lem Ward, one of the two famous brothers from Crisfield known for their extraordinary waterfowl carvings. In addition, a poem hangs in his office that was given to him by Lem Ward, who was a patient. Also in his home are several handcrafted replicas of boats given to him by another appreciative patient.

The mutual respect Dr. Azar shares with the residents of Salisbury is also based on his community involvement. He has served as a member of the local YMCA board and helped the organization out of bankruptcy and into a new state-of-the-art facility with 7500 active members. Dr. Azar was a board member of the Wicomico County Humane Society during its recent successful building campaign and he helped Camp Wright for Children, located on Kent Island, raise $900,000 for new cabins and facility renovations.

Dr. Azar and his wife, Wilma, have four children, three sons and a daughter. Their oldest son, Alex II, has clerked for Supreme Court Justice Antonin Scalia and is now an associate special prosecutor on the Whitewater investigation. Another son, Casey, recently graduated from the University of North Carolina, where he played third base for the UNC team, and currently works in marketing for Boston Beer Company. Their only daughter, Stacy, is a Dean's List sophomore at James Madison University majoring in mathematics. Also at JMU is another son, Corey, who is the starting shortstop on the baseball team. The family picture wouldn't be complete without mentioning the Azar's 190-pound Great Dane, Caesar, and their three cats.



Dr. Azar and his wife, Wilma, enjoy some of the quiet solitude of the Eastern Shore in the comfort of their backyard.

become fully capitated, they will realize they don't need an insurance company anymore. "A totally capitated system is ideal for the insurance carrier. It's better than going to Las Vegas with the wheel fixed, because they have absolutely no risk at all," Dr. Azar explains. "They pass all the risk down to the providers, the hospital, and the doctors in a totally capitated system."

Yet, with the possibility of community health networks looming in the future, he's not totally counting the presence of HMOs and insurance companies out of the big picture. "I'm not anti-HMO and I'm not anti-insurance company because I think there is a role for both. I think doctors are very good at providing medical care and insurance companies are very good at marketing their product and handling claims," allows Dr. Azar. "And even if we were to have a full-blown community health network, people will have to be hired to do the paperwork and the administrative work."

Even though Dr. Azar is not against HMOs or insurance companies, he does feel strongly that their role in the health care delivery system must be toned down. "We have been allowing the insurance industry and other people to make decisions for us because we haven't had the foresight to do it ourselves," Dr. Azar remarks. He is referring to managed care's penchant for eliminating unnecessary surgery and procedures, lowering provider reimbursement levels, and using cost-efficient providers and other market strategies such as capitated fee arrangements. Dr. Azar fears that many of these strategies contain profit incentives to deny care and utilization of medical services. Dr. Azar has found many of his colleagues concur with him and believes at some point quality of care will suffer as necessary services are denied.

"You can't make it so financially rewarding to providers that their clinical judgment is tainted," Dr. Azar offers. "The only reason it has worked so far is that the vast majority of providers are so conscientious and so compassionate about their patients that they have not allowed the financial incentive to obscure their judgment."

Dr. Azar intends to use his role as Med Chi president to temper managed care's role in the practice of medicine and become "the bridge builder" the medical field so desperately needs right now. He has a plan



Casey, a marketer for Boston Beer Company, poses with one of the family pets, Caesar, a 190 lb. Great Dane.



Corey, the starting shortstop for James Madison University's baseball team, suits up for a game.

that involves Med Chi's implementing a system that will guide younger generations into a health care industry that works effectively with or without managed care. "Maryland is in a unique position because, through Med Chi and its relationship with all these other people, we are ready to promulgate and be the first to try to unravel the mystery of managed care and the impact it's having on the health care industry."

Dr. Azar's brainchild for unraveling managed care would start with Med Chi's establishing an independent, nonprofit Managed Care Institute (MCI). The MCI would be governed not only by representatives of insurance carriers, the HMO industry, hospital associations, and providers, but also by the patients. The MCI Dr. Azar is suggesting would first and foremost use practicing physicians, not administrative doctors, to develop guidelines and practice parameters for Maryland's health care industry.

"I'm not saying we should have cookbook health care—we shouldn't. Cookbook [health care] is bad because people are just too diverse; each person responds differently and their genetic makeup is different," Dr. Azar commented. "The practice parameters and guidelines should be generally just that—guidelines—and they usually should be minimum guidelines that allow you to do more."

Through the Med Chi presidency and his seat on the Governor's task force, Dr. Azar will be instrumental in reshaping the future of health care in Maryland. However, he holds another prominent position, also allowing him to influence change, as a commissioner on the Health Care Access and Cost Commission (HCACC). HCACC has been very controversial of late due to the collection of data for its Medical Care Data Base. Dr. Azar quickly points out that there has been a lot of misinformation in the community about the data collection with regard to the confidentiality issue. He acknowledges that HCACC is very much concerned about this issue and has set up a confidentiality work group "that is very polarized so that both sides are represented in the work group."



Alex II, Stacy, and Dr. Azar stop for a picture outside the U.S. Supreme Court building, where Alex clerked for Supreme Court Justice Antonin Scalia.

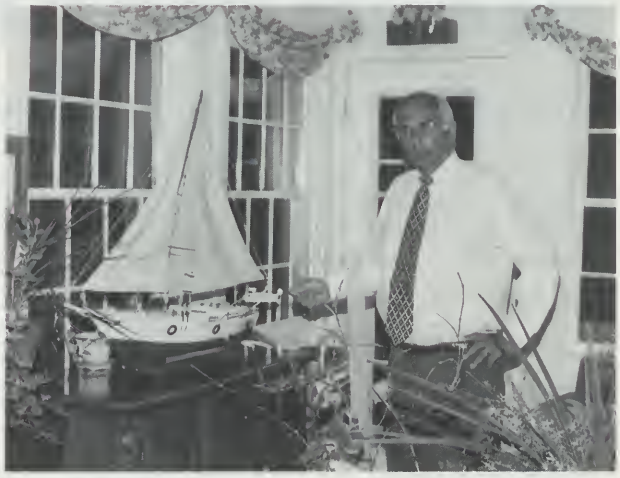
Confidentiality issues aside, Dr. Azar supports the Medical Care Data Base and believes it will be beneficial because of its ability to track where the health care dollar goes and in

turn possibly getting the cost of health care in check. Since 1993, he has personally seen his reimbursement levels go down 30 to 40 percent. "Now what I want to know is where is that money going in the health care system? If it's not going to the providers, where is it going?" Dr. Azar questions. "How are you going to know unless you get the numbers?"

HCACC has collated the numbers for the 1993 data and found that providers received 20 percent of the $13 billion spent on health care in the state of Maryland that year. Forty percent of the money went to hospitals and the other 40 percent went to nursing homes, pharmacies, administrative costs, and other allied health care providers. Dr. Azar insists knowing this breakdown of information is essential for finding a solution that will harness the rising costs of health care. "I feel very strongly that in setting up any system of public policy you have to separate fact from fiction and in order to speak intelligently about the issues you must have the data," Dr. Azar insists. "If you don't have this type of information you can't make responsible decisions and decisions are going to be made because the pie is only so big."

Dr. Azar maintains that it would be inappropriate for someone in a policy decision mode to look at the utilization of health care resources and services and try to change how they are being diverted without having any information to back them up. The main goal of the HCACC data base is to gather and collate the information that will help policymakers make the most responsible decision possible and act responsibly with the correct justification.

Managed care and the explosion of health care costs have not been the only significant change to the health care industry in the past few years. The explosion of technological advances has also altered medical care. Technology's tremendous impact on medicine today has especially changed the field of ophthalmology. "Every five years, there has been some big change where I have had to go back and totally retrain myself," Dr. Azar explains. During his 20-year span of ophthalmology practice, Dr. Azar has seen cataract surgery advance through several different implant procedures. He has also introduced a number of ophthalmic surgical innovations to the Salisbury area, including the use of intraocular lens implants, phakoemulsification of cataracts, trabeculectomy for glaucoma, and recently, single-stitch cataract surgery.



Dr. Azar points to a handcrafted boat replica, one of the many gifts given to him by appreciative patients.

The advances in technology have allowed Dr. Azar to derive more from his career, as his greatest satisfaction comes when he has to remove the eye patch of a patient who has sight in only one eye. "They are in total darkness and you take the patch off and they can see," Dr. Azar explains. "There is no reward you could ever receive that's any greater."

Dr. Azar ascertains that there is no greater reward than giving someone sight again. However, a crowning achievement of more public prominence could stem from his efforts to build the bridge that leads Maryland's health care industry into the next millennium. Through consensus building and the genuine desire to find a solution for the woes of a hurting health care system, Dr. Azar will be one of the key players who helps to make the decisions that bring about a more positive way to practice medicine.

Elizabeth A. Schwartz, M.A.
Ms. Schwartz is publications coordinator at Med Chi. ■

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1996 Component Society Presidents



Allegany County

Rosario B. Gonzaga, M.D., a native of the Phillippines, is president of the Allegany County Medical Society. Dr. Gonzaga received her medical degree from the Cebu Institute of Medicine in 1972. She worked as an assistant professor of microbiology and biochemistry at the C.I.M. School of Medicine prior to completing an internship at St. Joseph Hospital in Chicago, Illinois. From 1975 to 1977, Dr. Gonzaga worked as a medical commission officer in Chicago. Board eligible in pediatrics, she has maintained a solo practice in pediatrics since 1978, serving patients from Cumberland and Frostburg, Maryland, West Virginia, and Pennsylvania. Dr. Gonzaga was chairperson of the department of pediatrics at Sacred Heart Hospital in Cumberland, Maryland from 1985 to 1989. She currently serves as a staff member at both Sacred Heart Hospital and Memorial Hospital and Medical Center in pediatrics. In addition to being a member of Med Chi, she is a member of the AMA, APPA, Medical Auxiliary, and C.I.M. Alumni Association.



Anne Arundel County

Margaret M. Mullins, M.D., an internal medicine specialist and an acupuncturist in private practice in Cape St. Claire, Maryland, is Anne Arundel County Medical Society's first female president. A native of Wisconsin, Dr. Mullins received her medical degree from the Medical College of Pennsylvania. She completed an internship in internal medicine in the social medicine department at Montefiore, Bronx, New York, and an internship in general surgery at Mayday Hospital, Croydon, England. She finished her residency training in internal medicine at Lankeuau Hospital. In addition, Dr. Mullins received her Licentiate in Acupuncture from the College of Traditional Chinese Acupuncture, U.K. Board eligible in emergency medicine and medical acupuncture, Dr. Mullins is a national boards diplomate, an internal medicine diplomate, and a diplomate of the National Commission for Certification of Acupuncturists. A founding member of the American Academy of Medical Acupuncturists, she is very active in several professional organizations including the American Medical Women's Association.



Baltimore City

Murray A. Kalish, M.D., was installed as the president of the Baltimore City Medical Society (BCMS) in December 1995. Dr. Kalish graduated from the University of Maryland School of Medicine in 1973 and completed his residency and fellowship in anesthesiology at University Hospital in 1977. Board certified in both anesthesiology and critical care medicine, Dr. Kalish is very active in the Medical Alumni Association of the University of Maryland, Inc., presently holding the position of secretary. Dr. Kalish has served in a variety of Med Chi and BCMS positions, including chairperson of the Reference and Emergency Medical Services Committees, delegate, alternate councilor, councilor, member of the Legislative Committee, member of the BCMS Board of Directors, and treasurer. He is active in the Maryland-DC Society of Anesthesiologists, serving as president from 1988 to 1990. Among his other responsibilities, Dr. Kalish is a member of the Baltimore City Medical Political Action Committee Board of Directors and president of the BCMS Foundation, Inc.



Baltimore County

Herman Brecher, M.D., is president of the Baltimore County Medical Society. He is a graduate of the University of Maryland School of Medicine, where he also completed his internship and residency in internal medi-

cine. He was a sole practitioner specializing in primary care and internal medicine from 1962 until 1995. Dr. Brecher also held the positions of president, vice president, secretary, and treasurer of the Northwest Hospital Medical Staff throughout the late 80s and early 90s. He works at Northwest Primary Care Group, P.C., in Baltimore and presently sits on the board of directors of Northwest Hospital, in addition to serving on the Hospital Planning and Continuing Quality Improvement Committees. Dr. Brecher is very active in the Baltimore County Medical Association, having served as president, vice president, secretary, and treasurer and on the Peer Review, Membership, and Legislative committees.



Calvert County

Gerald P. Sterner, M.D., is the president of the Calvert County Medical Society. A graduate of the University of Maryland School of Medicine, Dr. Sterner completed his residency in family practice and served as chief resident at the University of Maryland Hospital. He is currently a family practitioner in Owings, Maryland, and serves as president of the corporation Sterner & Umhau M.D.S. Chartered. Dr. Sterner, a charter board member of the Calvert Memorial Hospital Foundation, holds continuous admitting hospital privileges at the Calvert Memorial Hospital in Prince Frederick, Maryland. He is past vice president of the medical staff at Calvert Memorial Hospital and was honored with the Physician's Recognition Award for community service. He serves as a mentor for life sciences-medically oriented students at Calvert County Senior and Northern Senior high school. A diplomate of the American Board of Family Practice and the National Board of Medical Examiners, Dr. Sterner is a member of the American Academy of Family Physicians and the Maryland Academy of Family Physicians.



Caroline County

Christian E. Jensen, M.D., M.P.H., has been president of the Caroline County Medical Society since 1979. Dr. Jensen received bachelor's and master's degrees from Rutgers University. He graduated from Duke University School of Medicine and earned his master's degree in public health from the Medical College of Wisconsin. He completed an internship at the Naval Hospital in Portsmouth, Virginia, and a residency in occupational medicine at the University of Cincinnati College of Medicine. A Naval Reserve captain, Dr. Jensen is a Vietnam and Desert Storm veteran. In addition to his private practice, he served as medical director of the Delmarva Foundation. Dr. Jensen has worked as the director of occupational health at the U.S. Naval Academy since 1993. He is a member of the American Medical Association, the Delaware State Medical Society, and the Naval Reserve Association. He is a fellow of both the American Academy of Family Practice and the American College of Occupational and Environmental Medicine. In 1996, he passed the certifying examination of the American Board of Medical Management. Dr. Jensen is author of the book *Physicians of Caroline County Maryland 1774-1984*. He farms 500 acres in Caroline County.



Carroll County

Andrew Kessler, M.D., a board certified ophthalmologist, is the president of the Carroll County Medical Society. He graduated with honors from the University of Pennsylvania School of Medicine in 1982, receiving the Stuart Mudd Award for excellence in microbiology and the John G. Clarke prize from the department of obstetrics and gynecology. He completed his internship at Presbyterian University of Pennsylvania and his residency in ophthalmology at the University of Maryland Hospital. In

addition to his private practice, Dr. Kessler is the chairperson of the Laser Safety Committee at Carroll County General Hospital. A diplomate of the American Board of Medical Examiners, he is a member of the American Academy of Ophthalmology, American Society of Cataract and Refractive Surgeons, and Maryland Society of Eye Physicians and Surgeons.



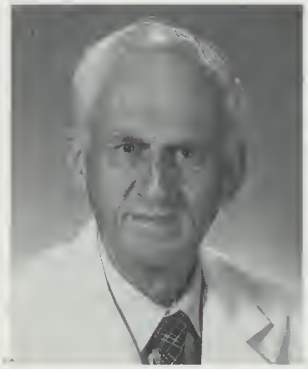
Cecil County

Henry Farkas, M.D., M.P.H., began his eleventh term as president of the Cecil County Medical Society in January 1996. A native of New York City, Dr. Farkas attended Loyola College and The Johns Hopkins University, where he received his medical degree in 1970 and his master's degree in public health in 1971. After completing his internship at Lancaster General Hospital in Lancaster, Pennsylvania, Dr. Farkas served as general medical officer on a Navajo reservation in Chinle, Arizona. Returning to Maryland in 1973, he worked as an emergency physician at Harford Memorial Hospital and as medical director of the Cecil County Detention Center. Dr. Farkas currently practices emergency medicine at Union Hospital of Cecil County, where he has held the posts of president of the medical staff, chairperson of the emergency department, and medical director of occupational health. He also serves as medical director of the Northern Chesapeake Hospice and the Medical Adult Day Care Center of Union Hospital of Cecil County. An active member of Med Chi, Dr. Farkas serves on the Peer Review Committee. He also is a member and sits on the board of directors of the Maryland chapter of the American College of Emergency Physicians.



Charles County

Krishan Mathur, M.D., is the president of the Charles County Medical Society. Dr. Mathur received both his bachelor of medicine and bachelor of surgery degrees from the University of Rajasthan in Jaipur, India. He interned and served his residency at Coney Island Hospital in Brooklyn, New York. Following his residency he was granted a fellowship in medical oncology at the VA Medical Center in Washington, D.C. He presently practices oncology and hematology at the Cambridge Oncology Center. Dr. Mathur also serves on the board of directors and as the medical director at the Hospice of Charles County in LaPlata, Maryland. In addition to Med Chi, he belongs to the Cancer Committee and Tumor Board and has served as vice president of the Charles County Medical Society.



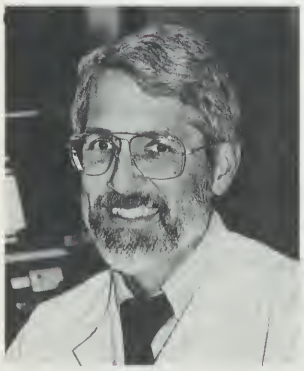
Dorchester County

Peter W. Rieckert, M.D., is the president of the Dorchester County Medical Society. He earned his medical degree at the University of Heidelberg in 1951. Dr. Rieckert completed residencies in clinical, anatomic, and forensic pathology in Tuebingen, Germany; Lynchburg General Hospital in Lynchburg, Virginia; and Pondville Hospital in Massachusetts. In 1956, he worked in the office of the chief medical examiner in Baltimore, specializing in forensic and general pathology. From 1961 to the present, he has worked at the Dorchester General Hospital in Cambridge, Maryland, as a general pathologist and medical examiner for the county. In addition to having served as chief of the medical staff at Dorchester General Hospital, Dr. Rieckert has served on the hospital's board of directors and been chairperson of the Quality Assurance Committee.



Frederick County

JOHN VITARELLO, M.D., president of the Frederick County Medical Society, received his medical degree from the University of Maryland School of Medicine, where he also was granted a cardiovascular fellowship. He completed his internship at Maryland General Hospital and residency training at the University of Maryland Hospital. Dr. Vitarello currently has a private practice in Frederick, Maryland, specializing in cardiovascular diseases. In addition to his private practice, he is an active staff member at Frederick Memorial Hospital. Board certified in internal medicine and cardiology, Dr. Vitarello is a member of the American College of Cardiology, board of the American Heart Association (Frederick Chapter), American College of Chest Physicians, and an advisory member to the National Museum of Civil War Medicine.



Garrett County

THOMAS G. JOHNSON, M.D., is the current president of the Garrett County Medical Society. He received his bachelor's degree from Pennsylvania State University and his medical degree from the University of Pittsburgh. He completed a rotating internship at Roanoke Memorial Hospital. Dr. Johnson is currently chief of staff and director of the coronary intensive care unit and cardiopulmonary department at Garrett County Memorial Hospital. He is president of the Garrett Medical Group, P.A., and has a full-time family practice in Oakland, Maryland. He also is clinical assistant professor at the University of Maryland department of family medicine and assistant clinical instructor at George Washington University. Dr. Johnson is a member of the American Academy of Family Physicians and American Medical Association.



Harford County

H.A. ARFAA, M.D., was first elected president of the Harford County Medical Society in November 1992. Dr. Arfaa completed his internship and then residencies in general surgery and plastic, hand, faciomaxillary, and reconstructive surgery in New York and New Jersey. He has served as chief of plastic, hand, faciomaxillary, and reconstructive surgery at both Harford Memorial Hospital and Franklin Square Hospital. Dr. Arfaa has served two terms as president of the medical staff, chairman of the medical executive committee, and member of the board of directors at Harford Memorial Hospital. A fellow of the International College of Plastic and Reconstructive Surgeons, he is senior attending plastic surgeon at Maryland General Hospital.



Howard County

MELVIN RAPELYEA, M.D., is president of the Howard County Medical Society. After graduating from the University of Rochester School of Medicine in 1976, Dr. Rapelyea interned and completed his residency at North Shore University Hospital in Manhasset, New York. He is a partner in Diagnostic Radiology Associates, P.A., in Ellicott City, Maryland. Board certified in diagnostic radiology, he is a diplomate of the National Board of Medical Examiners and has served as chairperson of the department of radiology at Howard County General Hospital. In addition to his service to Med Chi as chairperson of the Public Relations Committee, Dr. Rapelyea belongs to the Maryland Radiological Society, American College of Radiology, Radiological Society of North America, National Medical Association, and American Medical Association.



Kent County

ANTHONY J. MOORMAN, M.D., a native of Kentucky, is president of the Kent County Medical Society. Dr. Moorman received his medical degree from the Medical College of Virginia in Richmond. He completed his internship and residency training in obstetrics and gynecology at Tripler Army Medical Center in Honolulu, Hawaii. He is currently department chief of obstetrics and gynecology at the Kent & Queen Anne's Hospital in Chestertown, Maryland. A fellow of the American College of Obstetrics and Gynecology, Dr. Moorman is board certified by the National Board of Medical Examiners and the American Board of Obstetrics and Gynecology. He is a member of the Society of Laparoendoscopic Surgeons and the Southern Medical Society.



Montgomery County

MARK S. SEIGEL, M.D., is the president of the Montgomery County Medical Society. Dr. Seigel was the first student to be awarded a B.S. degree in computer science and engineering from the University of Pennsylvania Moore School of Electrical Engineering. He received his medical degree from the University of Pennsylvania School of Medicine and completed a residency in obstetrics and gynecology at the State University of New York at Buffalo. Dr. Seigel currently is in the private practice of obstetrics and gynecology in Gaithersburg, Maryland. As former chairperson of the department of obstetrics and gynecology at Shady Grove Hospital, Dr. Seigel worked with Dr. Martin Wasserman and the Montgomery County Health Department on "Project Deliver," which brought obstetric coverage to indigent patients while giving physicians liability protection. Very active in Med Chi, Dr. Seigel has been a member of several committees, including Computers in Medicine and Rules and Regulations. In addition to practicing medicine, Dr. Seigel enjoys skiing and figure skating.



Prince George's County

WILLIE C. BLAIR, M.D., a native of Mississippi, is the president of the Prince George's County Medical Society. Upon receiving his medical degree from Rush Medical College in 1974, Dr. Blair interned and completed his residency at Georgetown University Hospital in Washington, DC. He was granted a traumatology fellowship at the Maryland Institute for Emergency Medical Services Systems Shock Trauma Center at the University of Maryland from 1980 to 1981. Dr. Blair was the director of the division of traumatology for Prince George's General Hospital and Medical Center in Cheverly, Maryland from 1981 to 1988. He has also been an instructor of surgery at Georgetown University since 1980. A fellow of the American College of Surgeons, Dr. Blair is certified by the Pan-American Trauma Society and American Board of Surgery. He is a member of the board of directors of the American Heart Association and American Trauma Society and a member of the Southeastern Surgical Congress, National Medical Association, and Eastern Association for the Surgery of Trauma.



Queen Anne's County

MICHAEL E. PELCZAR, M.D., certified by the American Board of Pathology in both anatomic and clinical pathology, is the president of Queen Anne's County Medical Society. Dr. Pelczar graduated from the University of Maryland School of Medicine in 1965 and interned and completed his residency at St. Agnes Hospital in

Baltimore. Currently serving as the director of the infection control department at St. Agnes Hospital, Dr. Pelczar is also associate chairman of the department of pathology. He also serves as director of anatomic pathology at SmithKline Beecham Clinical Laboratories in Owings Mills, Maryland, and is the laboratory director for Drs. Hicken, Cranley and Taylor, P.A. In addition to being a member of the Maryland Society of Pathologists, International Academy of Pathologists, Southern Medical Association, Society for Healthcare Epidemiology of America, American Society for Microbiology, and American Medical Association, Dr. Pelczar is a fellow of both the College of American Pathologists and American Society of Clinical Pathologists.



St. Mary's County

M.F.O. Lafer, M.D., is the president of the St. Mary's County Medical Society. Dr. Lafeer earned his medical degree from the Faculty of Medicine at the University of Ceylon in Colombo, Sri Lanka. He completed a surgical and pediatric internship at the General Hospital in Colombo, a rotating internship at St. Joseph's Hospital in Lorain, Ohio, and a pediatric residency at the D.C. General Hospital in Washington, DC. A diplomate of the American Board of Pediatrics and the American Board of Quality Assurance and Utilization Review Physicians and a fellow of the American Academy of Pediatrics, Dr. Lafeer is in the private practice of pediatrics in Leonardtown, Maryland. He is the former chief of the medical staff at St. Mary's Hospital in Leonardtown, where he has active privileges in the department of pediatrics and is a member of the Executive Credential/Quality Assurance Committee of the medical staff. He is director of quality assurance for the Tri-County Endoscopy Center in Leonardtown, and the director of quality assurance and laboratories for Shah Associates, M.D., P.A.



Somerset County

James A. Sterling, M.D., is the current president of Somerset County Medical Society. Dr. Sterling received his bachelor's degree from Williams College, Williamstown, Massachusetts, and his medical degree from George Washington University. He completed his internship and residency at Baltimore City Hospital and served in the United States Navy. Since 1967, Dr. Sterling has maintained a family practice in Crisfield, Maryland, the town where he was born. He is on the staff of McCready Memorial Hospital and is currently the medical director and deputy coroner for Somerset County.



Talbot County

Michael J. Fisher, M.D., has been elected president of the Talbot County Medical Society. A graduate of the University of Maryland School of Medicine, Dr. Fisher completed his internship and residency in internal medicine at Mercy Hospital, Baltimore, and was a gastroenterology fellow at the University of Virginia Hospital in Charlottesville. A fellow of the American College of Gastroenterology and a diplomate of the American Board of Internal Medicine and the American Board of Internal Medicine: Gastroenterology, Dr. Fisher has written numerous scientific articles. He is currently an attending physician at Memorial Hospital in Easton.



Washington County

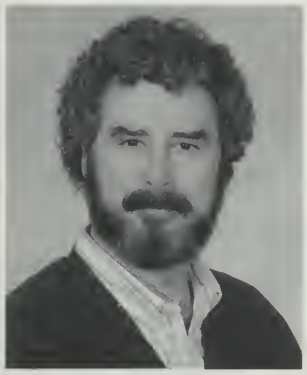
Robert J. Cirincione, M.D., the president of the Washington County Medical Society, earned his medical degree at the State University of New York in 1971. Dr. Cirincione interned and completed his first year of

residency in general surgery at New England Medical Center Hospital at Tufts University and finished his residency in orthopedic surgery at the Upstate Medical Center in 1976. He was a major in the U.S. Air Force from 1976 to 1978, serving as chief of orthopedic surgery. Prior to his current work at Mid-Atlantic Orthopaedic Specialists, P.C., Dr. Cirincione was in his solo practice from 1984 to 1988. In addition to being a member of the American Orthopaedic Society for Sports Medicine, Eastern Orthopaedic Society, and Maryland Orthopaedic Society, Dr. Cirincione is a diplomate of the American Board of Orthopaedic Surgery and a fellow of the American Academy of Orthopaedic Surgery.



Wicomico County

CHRISTJON J. HUDDLESTON, M.D., a native of California, is president of Wicomico County Medical Society. He is a graduate of the University of Maryland School of Medicine and completed his residency training in the department of internal medicine at Union Memorial Hospital in Baltimore. Board eligible in internal medicine, Dr. Huddleston is an instructor of clinical medicine I and II in the department of physical therapy at the University of Maryland, Eastern Shore, and the medical director of the University of Maryland, Eastern Shore Student Health Center. In addition, he has hospital privileges with Peninsula Regional Medical Center in Salisbury.



Worcester County

STEVEN F. WATERS, M.D., began his seventh term as president of the Worcester County Medical Society in January 1996. Dr. Waters holds degrees from Catholic University with honors and from Georgetown University School of Medicine. After completing a family practice residency at Franklin Square Hospital in Baltimore in 1983, Dr. Waters began his private practice in family and ambulatory medicine in Ocean City. A diplomate of the National Board of Medical Examiners, Dr. Waters holds memberships in the American Medical Association, American Academy of Family Practice, and Maryland Academy of Family Practice. Dr. Waters is a native of Pennsylvania.

Med Chi would also like to recognize component society presidents whose biographical information was not available at press time:



Student Component Society

BIMAL RAMI
University of Maryland School of Medicine



Resident Component

MICHAEL SOKOL, M.D.

ASK ANY DOCTOR, NEGLECTING A SERIOUS HEALTH PROBLEM WILL ONLY MAKE IT WORSE.

Whether it's a distressed kidney or a distressed health care system, the diagnosis is trouble unless the problem is treated properly. That's why we need to act on legislation that's already in Congress. We've heard the experts and we've heard the debates. Now you need to let your vote do the talking. So we'd like to remind you what our professional opinion is. The 300,000 physician members of the American Medical Association urge Congress and the Administration to approve the following reforms for the good health of our patients and the good health of the country.

Health Insurance Market Reforms: We need to expand health insurance coverage by removing current restrictions on pre-existing conditions and end "job-lock" by guaranteeing portability as provided in S. 1028, the Kassebaum-Kennedy bill.

Antitrust Relief for Physician Sponsored Networks: We should promote greater choice and competition through local physician networks by passage of antitrust relief as contained in H.R. 2925.

Patient Protections: Patients need better information and basic fairness safeguards in today's health insurance market. Gag clauses that attempt to restrict physician-patient discussion of treatment options should be prohibited. If mothers and newborns need to stay an extra day, they should be protected from premature hospital discharges.

Medical Liability Reforms: Americans are paying too high a price for the excesses of our legal system. The House of Representatives passed the California model of balanced medical liability twice last year.

Regulatory Relief: We need to cut red tape by reforming physician office lab requirements and adopting widely supported changes in the so-called "Stark I and II" physician referral laws.

Medicare Reform: Recent reports indicate we are closer to an insolvency of the Medicare program than we previously thought. The Balanced Budget Act of 1995 contained critical reforms that would preserve the Medicare program for current and future generations. We need to enact these reforms while we still have the time.

Medicaid Reforms: Both the Congress and the Administration need to strike a balance between greater state flexibility and assuring continued coverage for our nation's most vulnerable populations.

American Medical Association

Physicians dedicated to the health of America

Spider bites: a web of deception

Barry S. Gold, M.D., F.A.C.P.

Dr. Gold is an assistant professor of medicine at The Johns Hopkins University School of Medicine.

Spiders are members of the phylum Arthropoda, the largest phylum in the animal kingdom, and of the class Arachnida, which also includes scorpions, ticks, and mites. Although the number of arthropods considered sufficiently venomous to pose a threat to humans is relatively small, they have been incriminated in more bites and stings to humans than all the animals of the remaining phyla.[1] Numerous disease entities can be misdiagnosed as spider bites. This creates a perplexing diagnostic predicament for physicians confronted with a patient who believes that he or she may have been bitten by a spider. In most cases, however, since spiders rarely bite, a diagnosis of spider bite without the spider is merely conjectural.

The majority of the 20 000 species of spiders are venomous, but only about 200 species have been associated with significant bites to humans.[2] Spiders are frequently blamed for the bites and stings of other arthropods or for skin diseases caused by other etiologies. In fact, few spiders have fangs long and strong enough to pierce the human skin. In data collected from reports of approximately 600 suspected spider bites, excluding bites by widow spiders, 80% were found to be caused by other arthropods including ticks, mites, bedbugs, fleas, kissing bugs, lepidopterous insects, flies, beetles, waterbugs, and various Hymenoptera; 10% were due to *Loxosceles* species; and 10% were caused by other disease entities[3] (**Table 1**).

Widow spiders (*Lactrodectus* species)

The black widow spider found in the eastern portion of the United States is *Lactrodectus mactans* and its counterpart in the west is *Lactrodectus hesperus*. These spiders are located on all continents with temperate or tropical climates. Widow spiders tend to build their

Table 1. Some disease states misdiagnosed as *Loxosceles* spider bites

- Erythema nodosum
- Herpes simplex
- Purpura fulminans
- Diabetic ulcer
- Poison ivy or oak
- Gonococcal arthritic dermatitis
- Erythema chronicum migrans
- Toxic epidermal necrolysis
- Stevens-Johnson syndrome
- Sporotrichosis

webs in dark, secluded places such as outdoor sheds and wood piles, under stones, in bushes, and along the sides of houses. Often a single female may be found on a web guarding a rounded, brownish egg sac that contains numerous eggs (**Figure 1**). Widow spiders are not aggressive, and although both males and females are venomous, only females possess fangs capable of penetrating the human skin. Adult females range from 10 to 18 mm in body length; males are usually less than half that size.[4] Females are characterized by a red hourglass or other red markings on the ventral abdomen; their body color ranges from gray to brown to black depending on the species. Bites are usually the result of accidentally crushing a spider against the skin or deliberate mishandling. The colorful markings of the spider coupled with its tendency to "freeze" when disturbed may draw the attention of children, who might be tempted to pick up the spider as a toy.

Signs and symptoms. Most patients report a history of a sharp, pinprick-like bite. The initial pain is occasionally followed by a dull, numbing pain in the affected area associated with pain and cramping in one or more of the large muscle masses.[1] Muscle fasciculations may be observed within 30 minutes of the bite. Diaphoresis is common and the patient may complain of weakness as well as pain and tenderness in the regional lymph nodes. Lymphadenitis is commonly observed. Pain, particularly in the low back, abdomen, and thighs is a common complaint in severe envenomation. The patient may present with symptoms suggestive of an acute abdomen. Species found in the United States tend to cause little in the way of local tissue reaction. Puncture wounds may be visible only on close examination. The wound may be surrounded by an erythematous blush and blanched area later becoming pallid.[5] Usually this persists for approximately 30 minutes. Minimal, but localized edema may be present, particularly in children. Severe paroxysmal muscle cramping, headache, arthralgias, ptosis, mydriasis, restlessness, edema of the eyelids, skin rash, and pruritus are sometimes seen.[2] Respiratory difficulties, hyperreflexia, fine body tremor, nausea, and vomiting are not uncommon in more severe cases. The gait may appear groping and there may be incoordination. Hypertension is a common finding in moderate and severe envenomations, usually occurring between the second and fourth hours. In some cases, it may become accelerated, requiring immediate treatment. There may also be electrocardiographic changes ranging from simple ST segment depression and prolongation of the QT interval to complete heart block.[4]

Treatment. There is no effective first aid treatment for widow spider bites. For intense pain, ice applied directly over the bite site may be beneficial until the patient arrives at the hospital. If the patient's symptoms and signs are minor, no specific treatment is indicated. In most cases, 10 ml of 10% calcium gluconate solution can be administered intravenously or a muscle relaxant such as diazepam 5 to 10 mg three times daily may be used.[1] Calcium gluconate will usually have to be readministered at 4- to 6-hour intervals, although diazepam may be used for less severe envenomations. Meperidine HCl or morphine sulfate may be used when respiratory depression is not a problem. In mild cases, hot baths may afford symptomatic relief. Hypertensive crises are managed in the intensive care unit with sodium nitroprusside.

The administration of antivenin is usually reserved for severe poisonings that fail to respond to the above measures. In addition, all patients aged less than 16 or more than 60, those with hypertensive cardiovascular disease, and pregnant women should be treated.[1] Antivenin for *L. mactans* may be administered as one vial in 10 to 50 cc 0.9% normal saline solution over a 5- to 15-minute period after appropriate intradermal skin testing based on instructions provided with the package insert.

Violin spiders (*Loxosceles* species)

There are more than 100 species of *Loxosceles*. They have been commonly referred to as the brown recluse or fiddle back spiders. The most widely distributed species



Figure 1. A black widow spider in the web guarding its egg sac.



Figure 2. A violin or brown recluse spider.

in North America is *L. rufescens*. *L. laeta* was introduced into Central America from South America and has since migrated to parts of the southern, southwestern, and southeastern United States; sightings have been reported as far north as Cambridge, Massachusetts.[1] The most important *Loxosceles* species in the Midwest and South is *L. reclusa* (brown recluse spider), as opposed to *L. deserta* (desert violin spider) and *L. arizonica* (Arizona violin spider) in the Southwest.[2]

The species is characterized by six eyes grouped in three pairs. The abdomen of these spiders varies in color from grayish through orange and reddish brown to dark brown. The "violin" on the carapace is brown to blackish and distinct from the pale yellow to reddish-brown background of the cephalothorax[1] (**Figure 2**). They are domestic spiders and tend to be found in dark, dry corners or closets; nesting in litter such as paper or old clothes; and even in beds. Their activities tend to be nocturnal and they do their hunting at night. Usually secretive and nonaggressive, these spiders tend to bite only if caught between bare flesh and clothing. Both male and female spiders are venomous and capable of inflicting bites.

Signs and symptoms. The bite produces the same degree of pain as that of an ant sting, but sometimes patients may be unaware of the bite.[1] A localized burning sensation develops over the area lasting 30 to 60 minutes. Pruritus is frequently present and the area develops a "bull's eye" appearance.[5] The reddened area enlarges and becomes purplish over the next 1 to 8 hours. It subsequently becomes irregular in shape with hemorrhaging in the area. A bleb or vesicle forms, increasing in size, that ruptures with the formation of a pustule. The entire area becomes swollen and painful with lymphadenopathy. When the central pustule ruptures, necrosis to various depths may evolve. The necrosis can result in a large tissue defect. Systemic manifestations include fever, malaise, chills, sweats, nausea, vomiting, stomach cramps, splenomegaly, jaundice, hemolysis, hematuria, and thrombocytopenia. Fatal cases are rare and are usually preceded by intravascular hemolysis and renal failure.[5] There have been no reported deaths in the United States.[1]

Treatment. All first aid measures should be avoided because the natural appearance of the lesion assists in determining the diagnosis. However, an ice cube may be placed on the wound if pain is severe. At one time, excision of the bite was advised if the patient was seen within the first hour after the bite was inflicted and *Loxosceles* was definitely the culprit. That procedure, however, has fallen out of favor. The efficacy of steroids has been questioned, but Russell has shown good results with the use of intramuscular dexamethasone 4 mg every six hours during the acute phase.[1] If the poisoning is severe, hydrocortisone 300-500 mg should be given intravenously in divided doses daily until clinical improvement is noted, followed by decremental doses over a five-day period. Antihistamines are of questionable value. The use of dapsone has been advocated by King and Rees with encouraging results.[6] The victim may be left with a significant tissue deficit requiring skin grafting, which is best deferred until four to six weeks after the injury. A specific antivenin is being developed, but is not yet commercially available.

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Acknowledgement

Funding for the color reproduction of the photographs in this article was provided by Sinai Hospital of Baltimore, courtesy of Bart Chernow, M.D. ■

Tips for improving compliance in adult patients with low literacy skills

- ASSUME THAT your practice includes patients whose reading comprehension is at or below the eighth-grade level. Results of the National Adult Literacy Survey indicate 47% of U.S. adults have low literacy skills, and other studies indicate this problem occurs among people from all walks of life and all socioeconomic groups.
- When giving verbal instructions, use simple language, repeat key points, and demonstrate procedures to be followed.
- Stress the health behavior you seek, rather than giving a long explanation of the patient's disease process.
- Ask patients to tell you in their own words what you have instructed them to do. To avoid making the request seem like a test, tell them you want to be sure you remembered everything.
- Supplement oral instructions with written materials that use simple language and clear, uncomplicated graphics. Point out the important areas in the written material and explain why they are important.
- Provide written materials that use both upper- and lowercase letters. Words printed in all capital letters are more difficult to read.
- If the patient consents, include other family members or caregivers in the education process.

Source: Mayeaux EJ Jr, Murphy PW, Arnold C, Davis TC, Hackson RH, Sentell T. Improving patient education for patients with low literacy skills. *Am Fam Physician* 1996;53:205-211.

Laparoscopic adrenalectomy in a patient with Cushing syndrome

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Conventional adrenalectomy is usually performed through a transabdominal or flank incision and may involve resection of the 11th rib. Adrenalectomy using laparoscopic techniques appears to offer an improvement over open procedures. Laparoscopic techniques have generally been associated with less morbidity, a more expeditious recovery, and earlier discharge from the hospital. The advantages of laparoscopy are even more evident considering the large wound associated with traditional adrenalectomy.

Three laparoscopic approaches have evolved: flank transperitoneal,[1] anterior transperitoneal,[2] and retroperitoneal.[3] The current report describes a patient with Cushing syndrome in whom we began with an anterior transperitoneal approach and subsequently converted to a flank transperitoneal approach.

Case report

A 35-year-old woman presented with a 2-year history of fatigue, frequent frontal headaches, and a generalized weight gain of 34 kg. She also had hypertension during the past two years for which she was treated with an extended release form of nifedipine 60 mg/d. The patient's physical examination was remarkable only for generalized obesity (height, 5 feet 3 inches; weight, 89 kg). Her blood pressure was 140/80 mm/Hg. She had no pink striae, muscle weakness, or muscular atrophy.

Suspected hypercortisolism was confirmed by endocrine studies. Urinary free cortisol, although within the normal range on a control day, failed to suppress to below 20 μg/d and remained elevated at 58 μg/d on the second day of administration of dexamethasone (DST_2) 8 mg/d (**Table 1**).

Table 1. Dexamethasone suppression test

Date	UFC (<50 μg/d)	Creatinine (gm/L)	Total volume (ml/ld)	Comment
12/12/94	47	0.72	675	control day
12/16/94	58	1.15	1100	8 mg DST_2

UFC = urinary free cortisol

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Table 2. Diurnal cortisol levels and overnight dexamethasone suppression test

Date	Time	Serum cortisol (μg/dL)
3/27/95	0900	12.5
	2100	12.1
	2300	12.3
	2300	8 mg dexamethasone p.o.
3/28/95	0600	15

Table 3. ACTH and cortisol response after 100 μg intravenous O-CRH

Date	Time (minutes)	ACTH (pg/mL)	Cortisol (μg/dL)
2/17/95	0	<5	12.1
	30	8	13.5
	60	5	13.4
	90	12	13.2

When the patient was given oral dexamethasone 8 mg at 2300 hours, her serum cortisol the next morning was 15 μg/dL. Lack of diurnal variation was demonstrated by serum cortisol levels of approximately 12 μg/dL at 0900 and 2300 hours (**Table 2**).

The etiology of the hypercortisolism was suspected to be adrenal because the patient's basal adrenocorticotropic hormone (ACTH) levels were less than the lower limit of normal (5 pg/mL) on 3 occasions and because her serum ACTH response to 100 μg intravenous ovine corticotropin releasing hormone (0-CRH) was blunted (**Table 3**). Also supporting the adrenal origin of Cushing syndrome was a depressed dehydroepiandrosterone level of 120 ng/dL (normal, 130 to 1200 ng/dL). A magnetic resonance image of the abdomen showed a 2.2 cm right adrenal mass, and the patient underwent a laparoscopic adrenalectomy.

An anterior transperitoneal approach was attempted, but fatty infiltration of the liver was present and bled easily when retraction was applied. As a result, the anterior approach was aborted and the patient was placed in the left flank decubitus position. The transperitoneal flank approach was used instead, and the laparoscopic adrenalectomy was completed without difficulty.

Technique for laparoscopic right adrenalectomy

With the patient placed in the left flank decubitus position, four 10 mm trocars are placed 3 cm below the costal margin: the first in the mid-clavicular line; the second at the anterior axillary line; the third in the mid-axillary line; and the fourth at the mid-clavicular line at the level of the umbilicus (**Figure 1**). Trocars

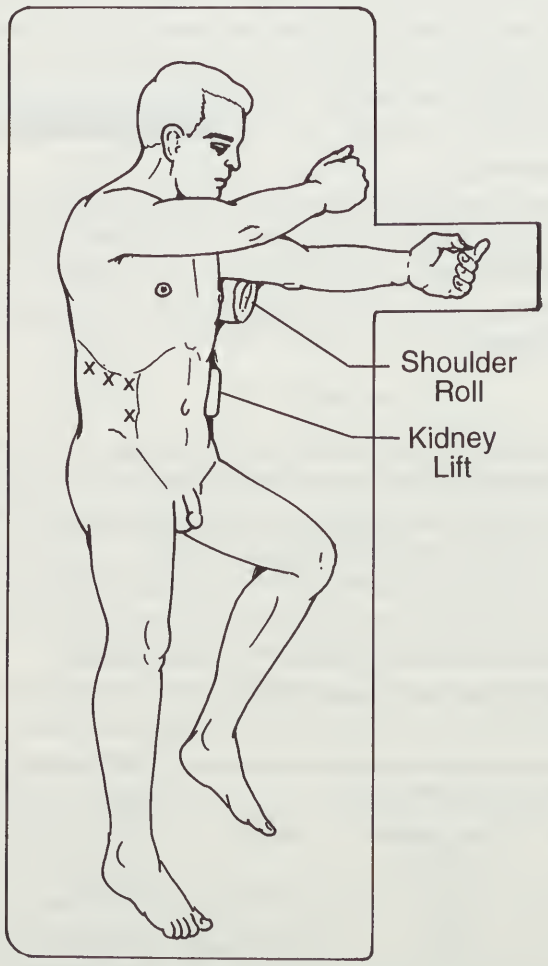


Figure 1. Four 10 mm trocars are used to perform a laparoscopic adrenalectomy.

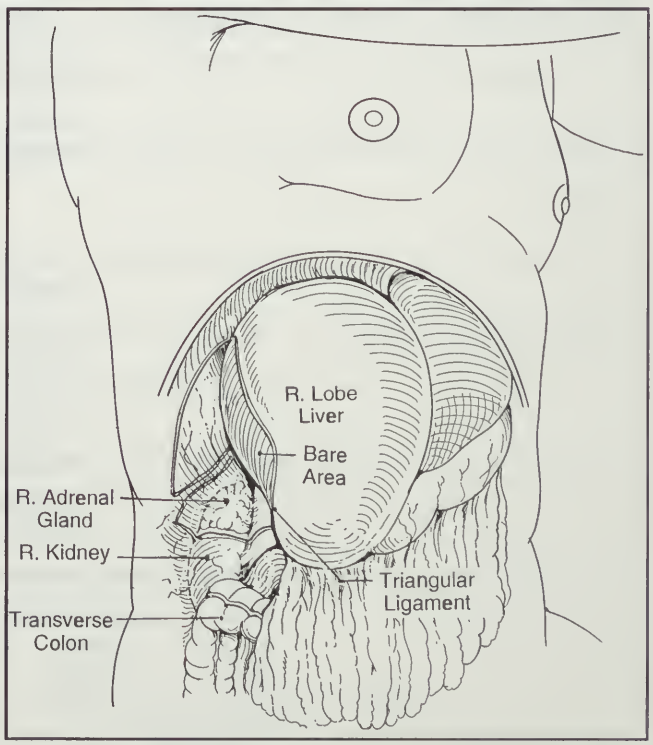


Figure 2. Exposure of the adrenal gland. The coronary and triangular ligaments are incised, allowing the liver to fall anteriorally and medially with gravity.

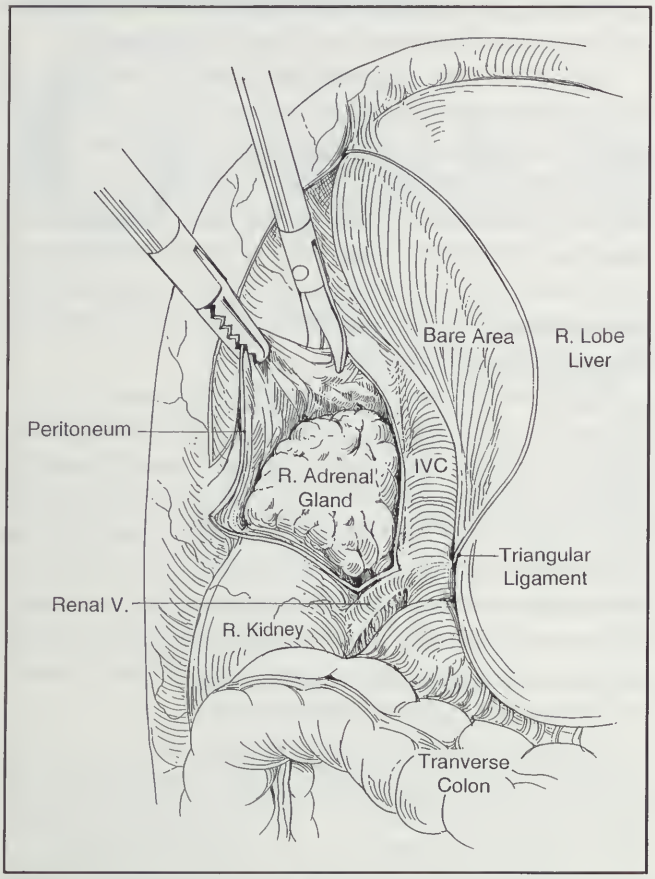


Figure 3. A peritoneal flap is developed in the manner of a trap door, exposing the adrenal gland.

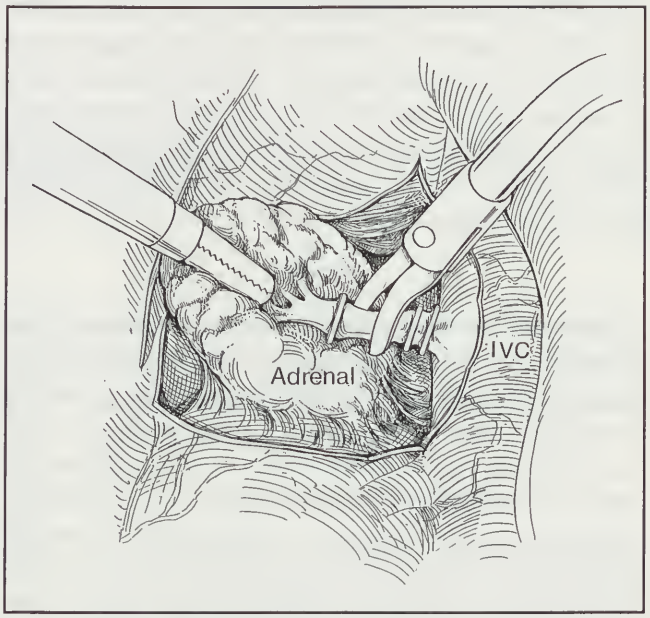


Figure 4. The adrenal vein leaves the gland from an anteromedial position and enters the inferior vena cava (IVC) on its posteromedial aspect. Usually the largest vein, it should be double clipped before transection.

one and three are used as working ports. The second is used for the endoscope, and the fourth is used for suction or liver retraction when necessary. The coronary and triangular ligaments are incised, allowing the liver to fall anteriorly and medially with gravity. The duodenum and pancreas are displaced to the left, exposing the retroperitoneum. The inferior vena cava, adrenal gland, and kidney are visualized (**Figure 2**). The technique then proceeds as described for the anterior approach.[4]

A peritoneal flap is developed in the manner of a trap door (**Figure 3**). It is dissected from the superior aspect of the kidney inferiorly, along the area of the inferior vena cava medially, and close to the liver superiorly. The adrenal gland is identified and by careful blunt and sharp dissection, the right adrenal vein is identified, draining into the inferior vena cava. The adrenal vein leaves the gland from an anteromedial position and enters the vena cava on its posteromedial aspect. It is usually the largest vein and should be double clipped before transection (**Figure 4**). Dissection is then continued in the same area. Other small veins frequently will be identified (going to the renal vein, phrenic veins, or inferior vena cava) and all these should be clipped in a similar fashion.[5]

The adrenal gland is then mobilized laterally, identifying the small adrenal arteries. At least three small branches are ligated and clipped, but many other smaller branches are sometimes present that need to be clipped and transected as well. Dissection is enhanced by the use of scissors that can cut and cauterize simultaneously. The gland is displaced superiorly, anteriorly, and laterally and is dissected free of the retroperitoneum (**Figure 5**). The gland is then completely mobilized, placed into a plastic bag, and removed through a port. During dissection, the gland must be handled carefully because it is very soft and can

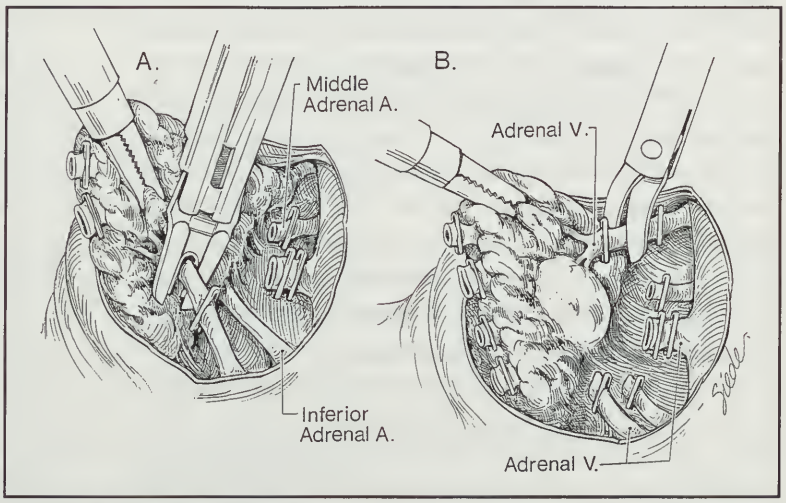


Figure 5. The adrenal gland is displaced superiorly, anteriorly, and laterally and is dissected free of the retroperitoneum. The adenoma can now be seen as the gland is mobilized (B).

be easily fragmented. Holding the gland from the stumps of the vessels or applying gentle traction on the capsule of the gland will help in the dissection. Serosanguinous oozing around the gland is common. To speed dissection and allow better visualization, suction and irrigation should be maintained as the procedure progresses to avoid the need for repetitive exchange of instruments.

Outcome

In our patient, the operative time from the beginning of the procedure was 3.5 hours (2 hours for the flank approach). She was allowed to eat a regular diet on the day of surgery and was discharged on the third postoperative day. At 2300 hours the night before discharge, she was given dexamethasone 1 mg. On the day of discharge her serum cortisol level was suppressed at 0.8 µg/dL. At follow-up nine months later, the patient reported feeling well and had lost 5 kg. Her blood pressure was normal without antihypertensive medication. Her morning serum cortisol (6µg/dL) and serum ACTH levels (27 pg/mL) were normal.

Discussion

For several reasons, laparoscopy seems particularly suited to the management of adrenal pathology. First, the small size of the gland makes it suitable for removal through a minimal access incision. Second, primary tumors of the adrenal gland are generally small enough to allow a safe dissection. Third, minimal access surgery eliminates the need for a major incision with resection of ribs 11 or 12. Fourth, tumors of the adrenal gland are usually benign adenomas.

The three techniques of laparoscopic adrenalectomy each have advantages and disadvantages. The anterior transperitoneal approach provides optimal access to the entire peritoneal cavity, allowing access to both adrenal glands if bilateral pathology is suspected and making it easier to investigate extraadrenal tumor spread. However, the viscera must be retracted to gain sufficient exposition to perform the surgery. The liver needs to be retracted on the right and the pancreas on the left, risking parenchymal damage and/or hemorrhage. In the case described, the friability produced by the fatty infiltration of the liver did not permit adequate retraction of the liver without causing bleeding. The anterior transperitoneal approach also can be difficult when there is a larger tumor in the left side because the exposure is more limited. It should be noted, however, that benign adrenal tumors are rarely larger than 4 cm.

The flank transperitoneal approach avoids the need for visceral retraction with its associated morbidity. With mobilization, gravity causes the liver (in the right-sided approach) or the spleen (in the left-sided approach) to fall away from the operative field.[1,6] The obvious disadvantage is the need for visceral mobilization and its potential hazards. In addition, given the angle of approach, initial control of the central adrenal vein may be difficult when a very large tumor is present.

Advocates of the extraperitoneal approach have cited its primary advantage as avoidance of the need for either mobilization or retraction of the peritoneal viscera.[3,7] It also reduces the risks of pneumoperitoneum. However, this approach affords only a limited number of working sites and a limited angle of dissection and retraction. There is also a risk of renal injury with initial trocar placement. We have not used the retroperitoneal approach because of the accessibility and minimal morbidity of the transperitoneal approach.

We believe laparoscopy is a significant advance in adrenalectomy for benign disease. As with most laparoscopic procedures, the primary advantages are reduced patient discomfort and faster recovery. Patients can tolerate a normal diet on the day of surgery and depending on the baseline pathology, can usually be discharged from the hospital within 24 to 72 hours. Most patients can return to normal activity within seven days. We have not seen episodes of intestinal obstruction with this technique, although follow-up is still short; the senior author (A.S.) began doing the procedure in 1992.

Laparoscopic adrenalectomy has been performed safely in patients with aldosteronomas, pheochromocytomas, and cortisol-producing adenomas. The availability of the procedure, however, should not lead to excision of lesions for which follow-up can safely be done. In a patient with an adrenal mass, management should include an orderly work-up to rule out a functional adenoma. If resection is necessary, it will depend on the size (>6 cm) or size increase at the 6-month follow-up examination. In patients with large tumors (>6 cm) and for patients with malignant disease, an oncologic procedure cannot be performed adequately using a laparoscopic approach.

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Geriatrics for the Clinician

RISK FACTORS FOR DEPRESSION AMONG OLDER ADULTS

Most older patients with depression who seek medical care will see their personal physician, not a specialist in mental health.[1] For this reason, the primary care physician plays a pivotal role in dealing with older patients who are depressed. Stereotypical symptom groupings encompassed in the standard diagnostic criteria for depression belie the myriad presentations of depressive disorder in primary health care that complicate detection and treatment. To uncover depression that accompanies or underlies a visit to the primary care doctor requires a basic knowledge of risk factors and a willingness to consider depression in the differential diagnosis.

Diagnostic criteria

The diagnostic criteria for major depressive episode may be found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).[2] To meet the DSM-IV diagnostic criteria for major depressive episode, an individual must have depressed mood (dysphoria) or loss of interest in things normally enjoyed (anhedonia) nearly every day for two weeks or more, and at least four of seven additional criteria. The additional criteria come under the headings of (1) appetite disturbance; (2) sleep disturbance; (3) fatigue; (4) psychomotor agitation or retardation; (5) feelings of worthlessness, sinfulness, or guilt; (6) inability to concentrate or make decisions; and (7) thoughts of death and suicide. Major depression consists of one or more episodes of depression with or without full recovery between episodes.

Dysthymia is a low-grade, more persistent form of depression lasting for at least two years but without ever meeting full criteria for major depression. Dysthymic patients are at risk for developing major depression. Bipolar disorder, or manic depression, requires at least one episode of mania along with episodes of major depression. When depression is directly attributable to a stressor, such as death of a spouse, an adjustment disorder with depressed mood may be present.

Risk factors for depression

Epidemiologic and clinical studies have identified several characteristics and conditions associated with depression in middle age and later life (**Table 1**[3]). Studies consistently show that women are at increased risk for depression in comparison to men. This is true even among older women, but whether the reason lies in the realm of biology or society is not clear. Women with less than a high school education appear to be at increased risk for developing depression.

Advanced age is associated with increased symptoms of depression, but it is often difficult to disentangle the extent to which symptoms might be due to depression or to the effects of physical illness, medication, or cognitive changes. Depression may be a direct manifestation of a physical disorder or medication, may be a reaction to the diagnosis of a chronic illness, or may coexist in a person with physical illness. The relationship of physical illness and medication effects to depression is particularly important for the elderly,

Table 1. Risk factors for major depression

- Female gender
- Advanced age
- Physical illness
- Functional impairment
- Widowhood/bereavement
- Change in residence such as nursing home placement
- Alcohol abuse
- Educational attainment less than high school
- Medications
- Family history of depression

Table 2. Characteristics thought to be associated with suicide

- History of previous suicidal attempts or suicidal ideation
- Male gender
- Living alone or socially isolated
- Recent loss such as bereavement
- Feelings of hopelessness, helplessness, or that life is a burden
- Physical illness
- Alcohol abuse
- Sleeplessness

because physical illness and medication use are more common with advancing age. Depression may also occur in the setting of cognitive impairment; particularly in the early stages of Alzheimer disease.[4]

Older adults with functional impairment from arthritis or other reasons may be at increased risk for depression. Asking older patients about activities they enjoy and their ability to perform activities of daily living (such as grocery shopping, preparing meals, getting together with friends) assists in detection and assessment of depression among older adults. Use of alcohol and other substances, including medications, may be associated with depression and should be considered when evaluating patients with functional decline or behavioral problems. Asking the patient about prior episodes of depression or treatment for depression or other psychiatric illness can heighten the index of suspicion that current symptoms are secondary to depression. Family history of depression as a risk factor for depression is thought to be less salient for older adults than younger adults.

Characteristics associated with suicide

Characteristics thought to be associated with suicide are shown in **Table 2**. Suicide rates have been increasing among older persons, and the highest suicide rates continue to occur among older adults, especially men. Although physical illness seems to be a more important factor in older adult suicide victims than in younger persons, certainly not all ill older adults are depressed or suicidal, even with a diagnosis of cancer. Characteristics other than presence of medical diagnosis must determine suicidal risk; among symptoms of depressive illness, it appears that feelings of hopelessness, in contrast to sadness, are more closely associated with subsequent suicide. Among persons who reported a visit to the physician, Cooper-Patrick and colleagues[5] found that four symptoms were associated with suicidal ideation: (1) feelings of sadness; (2) sleep disturbance; (3) feelings of worthlessness, sinfulness, or guilt; and (4) feelings of hopelessness.

Free information

Detection and treatment of depression in the primary care setting are discussed at length in the *Clinical Practice Guidelines for the Detection, Diagnosis, and Treatment of Depression in Primary Care.*[6,7] These guidelines were developed with input from primary care practitioners including general internists and family physicians. The guidelines are available from the AHCPR Clearinghouse, P.O. Box 8547, Silver Spring, Maryland 20907 (phone 800-358-9295). The full text of all guidelines also is available on the World Wide Web at http://text.nlm.nih.gov/

"Anything but depression"

Descriptions of syndromes akin to depression can be found in texts more than 2500 years old. Early writers emphasized the somatic and anxiety components of depression; only in recent times (and in Western culture) has the feeling of "sadness" been given prominence. The British psychiatrists Henderson and Gillespie, writing in their 1927 text, recognized the alternative presentations of depression in primary care settings: "Patients will consult the doctor in general practice . . . complaining sometimes of mild depression, but more often of *anything but depression.* They have vague or emphatic complaints of headache . . . dyspepsia of various kinds . . . and fatigue."

Unexplained somatic complaints may be a presentation of depression characteristic of older adults in the primary care setting. Sleep disturbance can be an important signal that depression is present. Older adults may deny sadness, diverting attention from the diagnosis of depression.[8] Loss of interest in activities enjoyed, loss of the capacity to enjoy and relish life, or feelings of hopelessness may be more salient. Some older adults may worry about undiagnosed illnesses like cancer, which could take on the form of a delusion. Patients with subsyndromal depression, sometimes called "minor depression," do not meet full criteria for major depression but still may have significant functional impairment.

In addition to alternative presentations of depression, recognition and treatment of depression in the primary care setting is hampered by physician, patient, and system factors.[9] Barriers to diagnosis of depression include lack of time on the part of the physician; failure of the patient to recognize or acknowledge the problem; lack of availability of an affordable, acceptable consultant; and the continued stigma associated with a diagnosis of mental disorder.[10] Among older adults, these problems are exacerbated by concomitant aging and disease-related changes.

Research in primary care

Relatively little is known about the determinants of persistence or severity of depression in the general medical setting. Understanding how to integrate general medical care and mental health care will require study of the correlates of depression over time among patients in the primary care setting, as well as study of system-related factors. It will be important to learn how to identify patients at increased risk for persistent depressive symptoms and functional impairment. Considering the detection and treatment of depression and other psychiatric disturbances must account for the symptom presentations and other issues that are specific to primary care practice.

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A STUDY PUBLISHED in the March 27, 1996, issue of the *Journal of the American Medical Association* indicates that Washington state physicians comply with one fourth of requests for physician-assisted suicide, a level of cooperation similar to that in Holland, where physician-assisted suicide is legally tolerated. At the last meeting of the House of Delegates of the American Medical Association, the following statement was unanimously approved:

> "The AMA continues to oppose euthanasia and physician-assisted suicide as fundamentally inconsistent with the physician's role, recognizing that such practice could contribute to erosion of the patient/physician relationship, and that the AMA assist state medical societies in actively opposing ballot and legislative measures to allow these practices."

According to Thomas Reardon, M.D., vice chairperson of the AMA Board of Trustees and chairperson of the AMA Task Force on Quality Care at the End of Life:

> "The recent study entitled "Physician-Assisted Suicide in Washington State" strengthens the AMA's contention that considerable physician education is necessary to assure quality, compassionate care for patients nearing death.
>
> "Physicians are healers. When it is clear that healing is no longer an option, the physician is faced with the often difficult challenge of helping patients and their families face death. Nonetheless, the inability of physicians to prevent death does not imply that they are free to help cause death.
>
> "It is the opinion of the AMA that if physicians were better educated in pain management and if more patients took control of their destiny through the use of advance directives, there would be virtually no need for physician-assisted suicide. To this end, the AMA is at this moment developing a comprehensive education program for physicians at all levels, from medical students to physicians in practice for 30 years.
>
> "Physicians must focus on advanced pain management in order to ensure that our patients receive appropriate medical care and are not forced into the arms of those like Dr. Kevorkian. The AMA will do everything in its power to protect our patients so they don't perceive assisted-suicide as a valid alternative."

Imaging Case of the Month

Medication-Induced Adynamic Ileus

Case presentation

A 44-year-old woman with past medical history significant for irritable bowel syndrome (IBS) presented to her primary care physician with complaints of cramping abdominal pain. She described the pain as similar to previous episodes that led to a diagnosis of IBS. She was undergoing medical therapy for her condition and was taking twice daily doses of sustained-release hyoscyamine sulfate 0.375 mg combined with sublingual hyoscyamine sulfate 0.125 mg every 4 hours as needed. Over the past 12 to 24 hours she had increased her typical usage of the sublingual medication due to the recent onset of her abdominal pain.

Imaging findings

An erect abdominal roentgenogram demonstrated multiple air-fluid levels in the lower abdomen along with a relatively decreased amount of bowel gas (**Figure 1**). A spot radiograph from an upper gastrointestinal study demonstrated an enlarged stomach with substantial retained intraluminal fluid (**Figure 2**). The stomach was noted to be aperistaltic on fluoroscopic examination and the transit of barium to the proximal portion of the duodenum was accomplished by patient positioning rather than by gastric peristalsis. A 12-hour delayed abdominal radiograph showed normal gastric size and presence of barium into the descending and sigmoid colon (**Figure 3**). At 12 hours, the patient's symptoms had abated and the bowel was minimally hyperperistaltic on physical examination.



Figure 1. Erect abdominal roentgenogram showing many air-fluid levels in the mid and lower abdomen (arrows).



Figure 2. An early spot film from an upper gastrointestinal barium examination showing an enlarged stomach with a large amount of retained intraluminal fluid. Gastroparesis was noted on fluoroscopic inspection.



Figure 3. A 12-hour delayed radiograph after the upper gastrointestinal examination showing normal gastric size (arrows) and barium throughout the majority of the colon. Fluoroscopic observation at this time showed normal to minimally increased gastrointestinal motility.

Diagnosis

Adynamic ileus due to excessive ingestion of hyoscyamine sulfate, an anticholinergic agent used in the treatment of IBS.

Discussion

When air-fluid levels are noted on an erect abdominal roentgenogram, the primary differential diagnostic considerations are enteritis, adynamic ileus, and bowel obstruction. Air-fluid levels are normally seen in the stomach and occasionally in the small bowel. Normal air-fluid levels in the small bowel should be isolated and should not exceed 2.5 cm in length.[1] Patients with obstruction and enteritis will have hyperactive bowel sounds, whereas patients with an adynamic ileus will have decreased or absent bowel sounds.

Adynamic ileus is a relatively common clinical and radiographic entity, defined as a derangement of the bowel that impairs proper distal propulsion of the intestinal contents. It has many causes, including postoperative states, ischemic bowel disease, anticholinergic drugs, neuromuscular disorders, systemic disease (e.g., sepsis), chest disease (e.g., pneumonia), and intraabdominal inflammation (e.g., appendicitis). The patient usually presents with abdominal pain, abdominal distension, and absent bowel sounds. The bowel is often minimally dilated and contains multiple scattered air-fluid levels. These findings can usually be identified by either abdominal radiography or computed tomography.

Medications that decrease peristaltic activity can produce a medication-induced adynamic ileus. These medications include opiate-based pain medications, dilantin, barbiturates, phenothiazines, tricyclic antidepressants, atropine derivatives, and diphenoxylate (Lomotil).[2] Furthermore, the alteration of bowel activity depends on the dosage and motility depressant properties of the drug itself. Patients present with symptoms that range from minor abdominal discomfort to severe abdominal pain.

Irritable bowel syndrome is one of the most common gastrointestinal disorders in clinical practice. The basic pathophysiology in IBS is an alteration of intestinal motility. Patients can have either chronic constipation or diarrhea and often complain of abdominal pain. Both groups have increased colonic motility after injection of cholinergic drugs or cholecystokinin.[3] Drug therapy is directed toward palliating the abnormal intestinal motility. Numerous medications, including anticholinergic drugs and tranquilizers, may provide symptomatic relief.

Patients who take medications that affect gastrointestinal motility are at risk for over- or undermedicating themselves. When the drug is taken purposefully to alter the bowel motility, the resulting clinical symptoms can sometimes be difficult to separate from the symptoms caused by the primary intestinal abnormality. A careful clinical history should elucidate the etiology of the patient's symptoms. The diagnosis of medication-induced adynamic ileus is one that should be correctly made in the proper clinical setting. Prompt withdrawal of the medication can result in rapid resolution of the adynamic ileus and obviate the need for further diagnostic testing.

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"NEGOTIATING [the American health care market] sounds more like an introductory lecture in economics than a social prescription for deciding who does or does not get to see the doctor according to need. But in the American medical marketplace, patients are becoming units, worthy of investment only when they are young and well. In the sad and often painful instant they become ill, or as they become old, they become a risk, a real or potential liability to an insurance company and its shareholders."

Source: Uninsured in the USA, and still waiting. *Lancet* 1996;347:703.

Dr. John Crawford: his name is his eulogy



Born in Ireland the second son of a Presbyterian clergyman, John Crawford (1745-1813) received his preliminary education at Trinity College in Dublin. He was given the first of his medical degrees at St. Andrews in 1791. At that time, a university could award such a diploma if evidence was presented that the applicant had studied medicine. Crawford, who possessed higher standards, sought and earned a second degree from the University of Leyden in 1794, at the age of 48.[1,2]

Early in his career, Dr. Crawford made two voyages to the East Indies as a surgeon in the employ of the East India Company. The first, on the *Earl of Middlesex,* took him from England to China and back. He subsequently sailed on the *Marquis of Rockingham* to Bombay and Bengal and then to his native country. Crawford was later given charge of the naval hospital in Barbados, where he served as surgeon and agent. Ill health forced his return to England, however, and on this voyage his wife died. After a stay in England, Crawford returned to Barbados, where he remained until the end of 1789. In the following year, he went to the Dutch colony of Demerary, where he was garrison surgeon. His stay there was much more pleasant than the one in Barbados. He had ample opportunity to explore his interests related to medicine, particularly medical botany. He recommended that a botanical garden be established and urged that medical students be induced to come there and carry on special field studies. A review of his experiences and thoughts about his residence in the East and West Indies may be obtained by reading an unpublished letter to Lieutenant-General Mathew written in 1793(?).[3] In it, Crawford detailed the problems of colonists as they adjusted to a new climate. As garrison surgeon in a military hospital, he had considerable opportunity to see the fevers of the warm climates. He decried the fact that the remedies and materia medica of the New World had not been fully utilized in other areas.

In 1794, Crawford relinquished his position and returned to England. After a period of study and research at Leyden, he obtained his second degree. In 1796, he embarked for the United States and Baltimore.

Crawford was a participator and in many instances a leader in the medical events of his day. He helped to introduce vaccination in Baltimore, for example. He was also, undoubtedly, a humanitarian. Several years before the Baltimore General Dispensary was founded in 1801 by Crawford and others, he discussed the project with Benjamin Rush. For

many years, Crawford was a consulting physician at the Dispensary (1801-1813) and also served on the board of managers (1802-1813). In a letter to Rush, he wrote, "Our Dispensary goes on here with great effect . . . . The good that we do is very extensive and daily interesting."[5]

Finding time to start a Bible study group and the penitentiary, Crawford was also one of the directors of the Baltimore Library. He lectured on natural history at the College of Medicine of Maryland and was a consulting physician at the Baltimore Hospital. In 1798, he became a member of the Masonic order and in a short time rose to its highest offices.

From 1804 to 1807, using the intriguing pseudonym of Edward Easy, Esq., Dr. Crawford edited a small weekly magazine called *The Companion and Weekly Miscellany* (later retitled *The Observer and Repertory of Original and Selected Essays in Verse and Prose of Topics of Polite Literature*). In the *Observer,* Crawford published a series of articles concerned with contagion. A number of theories had been unfolded during the sixteenth through the eighteenth centuries tentatively suggesting that living contagious agents were the causes of disease. Crawford offered his thoughts in the form of two long essays in the *Observer,* contending that isolated diseases were caused by specific insects.[6,7] Futcher[6] thought that because Crawford's theory was regarded as incredible by his medical colleagues, he used a literary medium rather than a medical journal to expound his ideas. In 1809, however, Crawford treated the same topic more formally in the *Medical and Physical Recorder,* the first medical journal published in Maryland.[8]

Crawford's ideas began to crystallize while he was in Demerary, where the swarms of insects first suggested to him that a living agent could cause disease. After discussing his concept with some of the professors at Leyden, he was stimulated to further reading. His predecessors in the field thought that contagion or direct contact was the prime source of the spread of disease. The practice of quarantine rose as a result of this idea. While in Baltimore, Crawford did some basic public health work. He plotted the extent and range of "bilious fever" and to his surprise found the epidemics were localized by well-defined geographic boundaries. These observations negated the "miasma" theory.

Crawford's preoccupation with minute insects may have blinded him to a consideration of microorganisms as etiologic factors of disease. Nevertheless, his observations on the geographical limitations of yellow fever were sound. A number of insect-borne diseases are limited by the distribution of the agents carrying the disease (e.g., yellow fever, malaria, tick-borne disease) and are not transmitted from person to person.

Crawford's idea about the specificity of infectious disease agents also was sound. In the *Observer* he noted, "Plague, yellow and every other fever, and every other disease we experience, must be occasioned by eggs insinuated without our knowledge. The larvae may proceed from one body to another."

Nevertheless, Crawford was still confronted by the problem of explaining simultaneous outbreaks of disease in different areas. In a letter to Rush, he wrote that all evidence seemed to confirm his opinions and that the cause of disease was a living principle. His main contribution to "contagium" seems to have been a decided accent on the biological and mechanical vectors of disease. To Crawford, infectious disease was always the result of a natural process, but he never considered that microorganisms might be the causes. Years would pass before Manson, Finley, Smith, and Ross critically examined insects and ticks as vectors of disease.

Crawford was also a bibliophile whose wide professional interests were reflected in the contents of his library.[9-11] His impressive private collection contained many works characteristic of an excellent eighteenth century library. The earliest imprint in his collection is dated 1565; the latest, 1811. The books are concerned not only with medicine, but with pharmacy, dentistry, and nursing. His collection of more than 400 volumes, written in six different languages, included works by Boerhaave, Bournet, Galen, de Haen, Haler, Helvetius, Hippocrates, Linne, and Withering. His private library was unique—comparable collections did not exist among his contemporaries. After his death, his daughter sold his books to the University of Maryland. These unusual and significant volumes were the rich beginning of a now extensive library.

If Crawford was more discriminating and sagacious about medical matters than his fellow practitioners, he was not so acknowledged. On the contrary, although he had acquired a good practice, he felt in his later years that a premature disclosure of his opinions invited the envious and malignant-minded to prejudice that deprived him of his valuable Baltimore practice. Subsequent evaluation of his life and activities has produced a much more mellow and apprecia-

tive picture. At his death, a masterful eulogy recognized the unselfish service and farsightedness of a talented humanitarian. His ambitions were never realized and his dreams never came true, perhaps because his ideas were too far in advance of his time to be given proper recognition by his contemporaries.

Now practically forgotten by the modern profession, John Crawford is perhaps one of the more noteworthy individuals in Baltimore history. Although he met with opposition and ridicule from his professional associates about contagion, he stood fast in his thoughts. Surely, his life, character, activities, and writing serve to underscore the accolade of Quinan: "His name is his eulogy."

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Thomas Hepburn Buckler, M.D.



Thomas Hepburn Buckler, M.D.

Julius Stewart's portrait of Thomas Hepburn Buckler, M.D., is probably the most striking portrait in the Med Chi collection. Painted in 1876, it shows a man described by a friend as "extremely handsome, dressed in the 'tip of the fashion' and . . . the idol of society."[1] Few Med Chi members and students of Maryland medical history are familiar with Buckler's career—probably since he spent 30 years of it in France. Fortunately, Buckler's personal correspondence survives and provides a fascinating picture of medical practice and life in nineteenth century Maryland.

Buckler was born January 4, 1812, and received his medical degree from the University of Maryland in 1835. He also studied medicine with his older brother, John Buckler, and remained as a partner in his practice until 1845. In August 1845, Buckler rented a house in Lexington Street and in October placed an advertisement announcing the opening of his

practice.[2] In a letter to his brother William, he stated that he "was not overly ambitious" and would be satisfied with "one half or one fourth or one third of the practice" his brother John had.[2]

In 1846, Buckler turned his attention to getting an appointment as a physician to the Baltimore Almshouse. He viewed this as a valuable source of medical training. "It is not at all desirable from a pecuniary point of view, nor favorable to the acquisition of private practice, but is of great importance as a means of advancing a man in the knowledge of his profession."[3]

The Almshouse appointment enhanced Buckler's reputation as well as his knowledge. In 1851, he published *History of Epidemic Cholera As It Appeared At the Baltimore City and County Alms-House in the Summer of 1849* based on his experiences there. He identified as a source of the outbreak a ravine by the building's north end that had been used as a dumping site for the Almshouse garbage. Once it was cleaned and a new drainage pattern established, the number of cases decreased.

Based on that experience, Buckler advocated public health measures throughout the city to stem future outbreaks.

Although Buckler found his association with the Almshouse valuable, his family did not share his enthusiasm. His sister Elizabeth complained to their brother William that "he only earns $400 [annually] and at the time he is engaged there is often the time he was wanted at his office."[4] She later lamented, "It must be hurting his practice."[5] In 1849, Buckler ended his relationship with the Almshouse and focused on expanding his private practice.

Buckler felt that his marital status hindered his practice. "As a single man I can never hope to get a large and lucrative practice . . . . If I get married I know at least I have every reason to believe that I should very soon get a larger practice."[6] By all accounts he was popular with the ladies. His niece related that "on Valentine's day he received no less than 16 Valentines, some of them very beautiful."[7]

Despite his popularity, Buckler remained unmarried until 1862, when he married Annie Fuller. She died one year later. In 1865, he married Eliza Ridgely White, the widow of John Campbell White, M.D. After their marriage they moved to Paris.

Two different reasons have been given for the move. Buckler's obituary indicates that his southern sentiments made life abroad look more attractive after the Confederacy's defeat. One of his colleagues, William Travis Howard, M.D., however, offered a different explanation. "[Eliza Ridgely White] . . . took him to Paris, away from his Baltimore ladies—She didn't realize that he could read and speak French!"[8]

Whatever the reason, Buckler practiced medicine in Paris under a license from the French government. He had time to write a large number of medical treatises, which kept his name before the medical community. The Bucklers returned to Baltimore in 1890, but the doctor never regained his status as "one of Baltimore's most prominent physicians."[1]

Margaret Burri, M.A.
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How familiar are you with your contracts?

During the late 1980s and early 1990s, there was a rush among physicians to sign every HMO/PPO contract that was presented to them. Many signed because they felt they had to or they would be excluded. Many of these physicians are now being recredentialed or dropped by these same plans, which may involve signing new contracts. *Read before you sign.* The contracts have changed and they have new language that you may not be familiar with.

Billing nonallowed amounts to secondary insurers

A local medical practice had a procedure of billing withholds and nonallowed amounts to secondary carriers (all insurers). The procedure occurred because the practice management believed that if the primary carrier paid all but a withhold and a nonallowed amount, the practice could bill the entire balance of the bill to the secondary insurer.

Such a procedure violates *every* contract you have signed except for the NASCO product under Blue Shield (NASCO has a quirk in its contract: you can bill it the full amount as a secondary and it pays the entire fee schedule amount, creating an overpayment that you cannot return to it). Under the Medicare program it is fraud. When you sign a contract that stipulates that the allowed amount from an insurer is what you accept as payment in full (which constitutes the payment from the insurer *and* the payment from the patient), you cannot bill nonallowed amounts to a third party. The Medicare program in Maryland erroneously paid withholds until the middle of 1994, so if you were getting paid and it stopped, that is why.

Allowed and nonallowed amounts—no contractual arrangement

When an insurer with whom you do *not* have a contract terms your charges unreasonable and more than the customary charge for your area, you can bill to the secondary carrier (the exception under Maryland law is HMOs: you see the patient, you accept the payment, and nonallowed amounts are handled as though you were contractual). Your staff needs to be aware of those with whom you do and do not have contracts.

The medical practice mentioned above also had a habit of accepting every insurer's allowed amount and adjusting off all but the copayments and/or the deductible. If you chose *not* to contract with a particular insurer (probably because of its low payments), why accept their allowed amount? By doing so, you actually *reduce* your true fee. In addition, you are failing to alert the patient that his or her insurance company pays so much less than your charge, which you can hopefully argue is fair at the onset. Until patients realize how little the physician is paid and how much the insurer feels is excessive, they will not know how little the insurer really had to pay. When the patient is responsible for a large balance because the insurer pays so little, you should direct the patient to someone in his or her company's employee relations department so the company can be told that the insurance it provides is not protecting employees as well as it should.

Several years ago I billed a patient for the full balance owed after her insurer paid its portion on an expensive CT scan. She promptly telephoned to say that her insurance company says she does not owe more than copayments. I told her that I do not accept her insurer's UCR and that she needs to advise her employer that she is now indebted for a large amount due to the insurer.

I then received a letter from the patient's employer (a large, well-known company in Columbia) stating that it provides the *best* insurance for its employees and that I should not hold the patient responsible for the balance. What the employer was really saying was that it purchased the best insurance for the amount *it chose to pay*. The employer chose the UCR scale under which physicians were paid. I replied that my practice did not subsidize that company's business decisions and that if it felt so strongly that the patient should not have such a large out-of-pocket expense, it must be inclined to pay it for her out of corporate funds. The company did.

What is a most favored nation clause?

Contained in managed care contracts, this clause states that you will give the insurer the best price for any services provided. In other words, you self-impose a fee cap. For example, a contract you sign with ABC (the local HMO) states that you will give them the best price. In negotiations with DEF (another local HMO), you accept a lower payment for services than you accepted from ABC. As a result of the most favored nation clause in your contract with ABC, you now must *reduce* your fees to ABC. You are actually negotiating against yourself for all managed care contracts.

Most favored nation clauses, which are appearing with a greater frequency now than in the past, should be stricken from

any contract you sign. It is your responsibility to comply with this clause. If you fail to comply, your contract can be revoked and you could end up reimbursing the insurer (or many insurers) a large sum of money. These clauses are not legal in Pennsylvania.

Remember that data capture will be performed by the state. Those data will be available to the public annually (your patients, other physicians, and most notably the insurers). The managed care contractor may not even have to audit your files on site to detect noncompliance—it can just go to the Health Care Access and Cost Commission(HCACC) for copies of your reimbursements.

Conclusion

In today's climate, where managed care decides who to accept, keep, or remove by "mapping," zip code exclusion, or the infamous "without cause" clause that so many contracts have, you need to know the rules. The days of managed care companies seeking out physicians are gone. Physicians are the ones doing the seeking (and in some cases cajoling) now.

Medicare is seeking ways to protect the trust fund and an all-out attack on fraud is on the horizon. Civil monetary penalties for fraud treble the damages and increase the fund as well as the reserves to investigate more fraudulent activity. Analysts predict increasing audits of health care providers. Other insurers are seeing that recoupment is an effective tool and are beginning to scrutinize physicians more closely.

Remember, to protect yourself from contract loss or worse:

- Reread those contracts—know the idiosyncrasies of each one.
- Hire only fully-trained, knowledgeable staff.
- See that your staff is aware of contractual obligations.
- Educate your staff.
- Educate your physicians.
- Play by the rules—it's too expensive the other way.

C. Sherwood Harris, CCAM
Mr. Harris is the editor of *Keep InforMD* and principal of Health Care Consulting Services. ■

Legal defense fund for physicians established

FIRST AMENDMENT Rights for Every Physician (FARFEP) was established in 1994 after an emergency physician was sued for libel and slander by a large corporation for writing an editorial about the entrance of big business into emergency medicine. The fund was established to help *any* physician who is sued for writing or speaking up on *any* medical issue.

FARFEP is a 501(c)3, tax-deductible First Amendment fund created to allow an individual physician to speak the truth about the "business" of medicine without fear of being crushed by the expenses of a meritless lawsuit, as well as to educate the public. FARFEP's first beneficiary had a vigorous battle, but prevailed with the help of FARFEP. The fund is ready and willing to assist any physician to protect his or her First Amendment rights. Inquiries or contributions should be sent to: FARFEP, P.O. Box 1968, Santa Fe, NM 87504 (505-982-7797).

Question

I have an internal medicine practice and often receive requests from surgeons to perform a preoperative clearance evaluation on my own patients. My office staff has different ideas as to how this service is to be CPT coded. Can you help settle this debate in my practice?

Answer

This type of service has historically been confusing for coders, billers, and other medical professionals. The confusion has occurred because the CPT book does not specify a series of codes to be used for preoperative clearance evaluations and insurers either have conflicting guidelines on how to handle coding and reporting for this service or have never addressed how to code for it. Some insurers even consider the preoperative clearance a part of the surgeon's preoperative care that is a component of the global surgical package. Because of such variations, it is always best to confirm with your key contractual insurers how they recommend coding and reporting for this service. Listed below for guidance and reference are Medicare's and Blue Cross Blue Shield of Maryland's preoperative clearance evaluation guidelines. **Note:** Medicare's policy is a perfect example of the confusion found when CPT coding for this service because the Health Care Financing Administration (HCFA) continues to changes its position on the correct CPT codes to bill.

Medicare. HCFA recently stated that when a physician is the patient's primary physician, the preoperative clearance evaluation should be billed using the appropriate established patient visit codes (99211-99215). However, if the patient is new to the internist or has not seen the internist in three years and a request is made by the surgeon for the preoperative clearance, then it would be appropriate to code and report office/outpatient consultation codes (99241-99245).

This is a complete reversal of an earlier position when HCFA advised that effective June 28, 1993, an internist could use consultation codes to report for a preoperative clearance examination for an established patient, as long as all consultation requirements were satisfied. The June 1993 policy statement was a reversal of the previous policy, which exactly matches the current HCFA policy statement.

Local Medicare carriers have not notified physicians of this policy change. Although a recent inquiry was made to the local carriers regarding this changed policy, we were not able to obtain the carrier's substantiation of the policy change. It is recommended that since substantiation could not be obtained from the local Medicare carriers, you should contact your Medicare provider representative to receive the latest update.

Blue Cross Blue Shield of Maryland. Blue Shield of Maryland considers the preoperative clearance evaluation to be included in the global surgical allowance to the surgeon. Maryland Blue Shield plans do not have a specified benefit for this type of service, except when a subscriber is to undergo a dental or podiatric surgery (March 1995 *Provider Journal*).

Question

A new employee in my pediatric practice, who had no previous training in coding, had trouble coding for the diagnosis failure to thrive, *a medical diagnosis for which there must be a code. How is the code for this diagnosis found?*

Answer

To code correctly, it is important that the employee have some knowledge of the medical condition (location, causes, associated conditions) and other terms that may have the same meaning. Next, it is important to use correctly the ICD-9 CM book to code for physician services. The difficulty your employee is experiencing probably stems from lack of training in diagnosis coding. Following is a description of *failure to thrive*; basic steps to follow when coding diagnoses/medical conditions; and guidelines for diagnosis coding to assist in future diagnosis code selections.

***Description of* failure to thrive (FTT).** This condition is the failure of infants, children, and adolescents to grow and develop normally. FTT is used to designate growth failure as both a symptom and a syndrome. As a symptom, it occurs in patients with a variety of chronic illnesses that interfere with normal nutritional intake (organic FTT). When the term is used to designate a syndrome, it usually refers to growth failure in an infant or child who suffers from environmental neglect or stimulus deprivation (nonorganic FTT). Signs and symptoms include height, weight, and head circumference that do not progress normally (the key lies in rate of change as measured by regular checkups); slow development of physical skills; and delayed mental and social skills.

Basic steps in ICD-9 CM coding

- Identify all main terms included in the diagnostic statement.
- Locate each main term in the alphabetic index (volume 2).
- Refer to any subterms identified under the main term (the subterms form individual line entries and describe essential differences by site, etiology, or clinical type).
- Verify code selected from the index in the tabular list (volume 1).
- Use fifth digit subclassification codes when provided.
- Follow instructions if the needed code is not located under the first main term consulted.
- Continue coding diagnostic statements until all the component elements are fully identified.

Based on these coding steps, the ICD-9 CM code for *failure to thrive* would be identified as follows:

- Main term: *failure.*
- Look up *failure* in the alphabetic index.
- Under *failure, failed,* is the term *growth.*
- Alphabetic index ICD-9 CM code identified is 783.4.
- Confirm the selected code in the numeric index.
- Numeric index confirms code selection by description *lack of expected normal physiological development.* Listed under this description is *failure to thrive.*
- The correct diagnosis code for *failure to thrive* is 783.4

Helpful diagnosis coding guidelines

- The most critical rule is to *begin* the search in the alphabetic index (volume 2). However, never use the ICD-9 CM code selected from the alphabetic index until you have confirmed your choice in the tabular index.
- Codes that describe symptoms and signs are acceptable for reporting purposes when the established diagnosis has not been confirmed by the physician. Chapter 16 of the ICD-9 CM, "Symptoms, Signs and Ill-defined Conditions" (codes 780.0 - 799.9), contains the majority of the codes for symptoms, but does not include *all* codes for signs and symptoms.
- Codes 001.0 through 999.9 will be used frequently to describe the reason for the encounter. The codes within this range describe the disease or injury.
- ICD-9 CM provides codes to deal with encounters for reasons other than an injury or a disease (V01.0 - V82.9). The "V" codes designate occasions when the encounter occurred for a circumstance other than a disease or injury.

ARE YOU OR MEMBERS OF YOUR STAFF IN A CODING QUANDARY? Send your questions to Deborah Bell, CPC, in care of *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201, or fax to the attention of Mary Ann Ayd, 410-547-0915.

- ICD-9 CM codes consist of three, four, or five digits. Three-digit codes are listed as the heading of a category of codes that are further subdivided by a fourth or fifth digit that provides greater specificity. A three-digit code is to be used only when it is not further subdivided. An ICD-9 CM code is considered invalid if it has not been coded to the full number of digits required for that code.
- Always code first the diagnosis, condition, problem, or other reason for the encounter (as shown in the medical record) that is the chief reason for the service provided. Then list additional codes that describe coexisting conditions.
- Never code diagnoses documented as "probable," "suspected," "questionable," "rule out," or "working." Code the condition to the highest level of certainty for the encounter/service. **Note:** This is the opposite of coding guidelines used by hospitals and medical records departments for hospital inpatients.
- Chronic disease treated on an ongoing basis should be coded and reported whenever a patient receives treatment and care for the conditions(s).
- When patients receive diagnostic and/or therapeutic services during an encounter, sequence first the code for the diagnosis/condition or the service noted in the medical record to be the primary reason for the diagnostic service. Codes for other diagnoses (chronic conditions) may be reported subsequent to the primary diagnosis. **Note:** According to HCFA, effective October 1995, "V" codes should *not* be a primary ICD-9 CM code for diagnostic or therapeutic services. The only exception to this rule exists for patients receiving chemotherapy, radiation therapy, or rehabilitation. The appropriate "V" code for the services is to be listed first, followed by the diagnosis or condition for which the service is being performed.
- Encounters for preoperative evaluations only should be coded using codes V72.81 - V72.85 (other specified exams) to describe the reason for the pre-op evaluation as the first ICD-9 CM code. Assign a code for the condition to describe the reason for the surgery as an additional diagnosis.
- Code the diagnosis for which the surgery is performed. When the postoperative diagnosis is known to be different from the preoperative diagnosis, use the postoperative diagnosis for coding and reporting because it is the most definitive diagnosis.

Deborah Bell, CPC
Ms. Bell is a regional coding and reimbursement consultant certified in medical coding by the American Academy of Procedural Coders. ■

Who's watching the watchers?

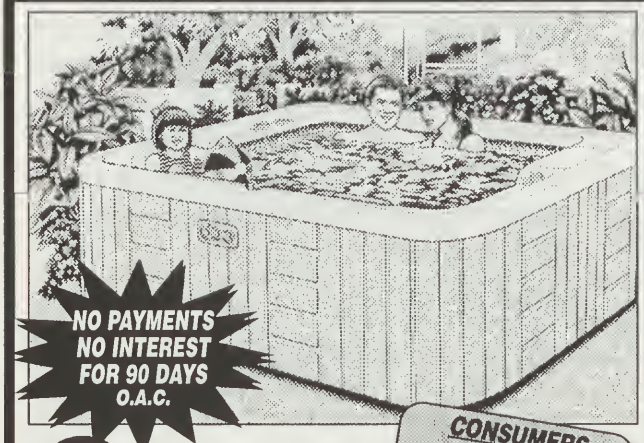
"RECENT U.S. POLICIES have . . . assigned more regulatory power to insurance firms and employers. From their vantage point outside the clinic, these corporate overseers have sought to change care through increasingly rigorous inspection. . . . Whether harmful or helpful, this managerial strategy demands from hospitals and physicians an ever more detailed paper replica reproducing each clinical encounter in shadow form before, as, and after it takes place in physical form. . . .

"Curiously, we have exempted new administrative procedures from the evaluation we demand of clinical ones. Does managerial pressure to compress care save work or just accelerate the pace? Do managed care referral constraints husband scarce resources or merely keep clerks busy and specialists idle? Does more administration increase efficiency or waste time and trees?"

Source: Himmelstein DU, Lewontin JP, Woolhandler S. Who administers? Who cares? Medical administrative and clinical employment in the United States and Canada. *Am J Public Health* 1996;86:172–178.

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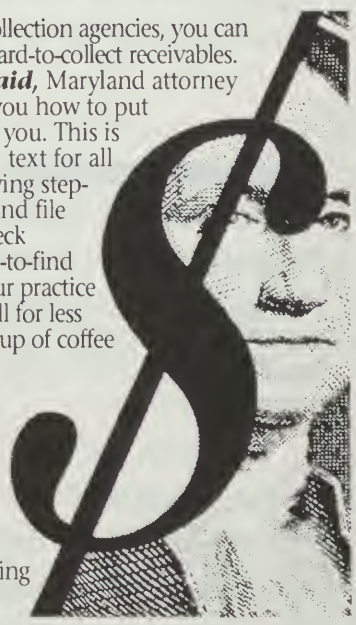
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Alliance

Moving Forward

1996-1997: 48 Years for the Alliance
1999: 200 Years for the Med Chi Faculty
2000: A New Millennium for Us All

Serving as president to the Alliance to the Medical and Chirurgical Faculty of Maryland is a distinct honor and privilege. Serving twice is doubly so, though with great regret that Marty Talton (Mrs. Hugh), who has served so ably as president-elect, is unable to continue. We thank Marty for all she has done this year in Membership and I thank her personally for her assistance in my preparations and for continuing on the Board in 1996-1997.

My work with the Alliance encompasses numerous offices, including president in 1984-1985. At that time, the membership was extremely helpful and dedicated to our programs. I look forward to working with our members again as we build toward the new millennium. The Alliance has definite purposes and it will benefit us all if we keep firmly in mind our reasons for existence.

To quote our bylaws:

"The purposes of the State Alliance shall be exclusively educational and charitable. They shall be:

- to assist the Medical and Chirurgical Faculty of Maryland in its program for the advancement of medicine and general health;
- to raise funds and participate in necessary activities to advance these purposes;
- to promote health education;
- to encourage participation of volunteers in activities that meet health needs;
- to support health-related, charitable endeavors;
- to coordinate and advise concerning the activities of constituent Alliances and promote and stimulate the organization of new Alliances."

Over the years it becomes easy to be immersed in details, overlooking the primary goals of our organization. One requirement of all members is loyalty to the group and its purposes, and to try to carry out, as efficiently and helpfully as possible, the tasks that are our responsibility, recognizing that the Alliance, composed of volunteer individuals, works best as an integrated whole. This means that we have a flexible framework with consideration for both the members and the Alliance. Methods that were once successful may be reviewed. Ideas that once were helpful may be discarded. Members who have concentrated on one segment may now need to enlarge their scope and develop a broader view. The year 2000 comes closer every day and we must reexamine our priorities as we look ahead.



Mildred Taylor, 1996-1997 Alliance president

Some steps have been taken such as incorporation, which has become a necessity in our changing world. Immediate Past President Mehry Reid (Mrs. Thomas) put in motion the necessary basis for this change, and Past President Adriana Zarbin (Mrs. Gino), Treasurer, has completed the process. Our health and legislative programs will be reassessed and our allegiance to Med Chi reaffirmed as the Faculty prepares for its year 200 in 1999. I hope to work closely with Dr. Alex Azar, president of Med Chi, and other members of the Faculty to help the Alliance fulfill its purpose of "assisting Med

Chi in its program for the advancement of medicine and general health."

Each Alliance year is important and dedicated to growth—in activities, publications, organizational reforms, and value. Throughout 1996-1997, we will work to enlarge our understanding and support of each member who helps represent the Alliance as the involved, caring organization that it is. Thank you for the opportunity to serve you again. I'll call on all Alliance members and Med Chi for their support in the year ahead. Our organization has great meaning for us all, wonderful memories of past joys and achievements, and the excitement of building a strong and purposeful future.

Mildred (Mrs. Charles E.) Taylor
Med Chi Alliance president, 1996-1997 ■

Alliance to Med Chi - 1996–1997 - 48th year

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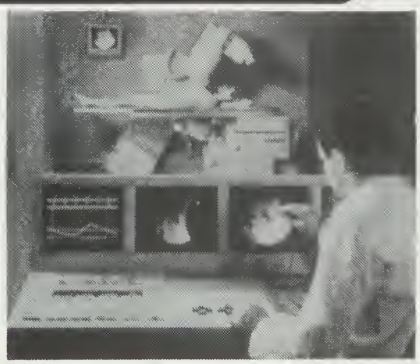
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The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

The first international conference on the exstrophy-epispadias complex	**May 1–2**
Advances in cardiac diagnosis and treatment 1996, Mt. Washington Conference Center, Baltimore, MD.	**May 2–3**
13th Annual Wilmer nursing conference	**May 3**
Critical issues in surgical pathology	**May 3–4**
41st Annual topics in clinical medicine, 39.5 Cat 1 AMA credits. Fee: $750/physicians; $600/residents, fellows, other allied health professionals.	**May 13–17**
Basic concepts in dysphagia diagnosis and management, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $185/physicians; $120/allied health professionals.	**May 29**
Sixth multidisciplinary symposium on dysphagia, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. 14 Cat 1 AMA credits. Fee: $425/physicians; $245/residents, allied health professionals.	**May 30–31**
Ninth summer institute in environmental health sciences, The Johns Hopkins Unversity School of Hygiene and Public Health. Info: Denise Barton, 410-955-3537.	**June 3–14**
Clinical trials, 15 Cat 1 AMA credits.	**June 4–5**
Interface of biomechanics and cell biology in orthopedics	**June 6–8**
Advanced pediatric life support, 20 Cat 1 AMA credits.	**June 10–12**
Management strategies of behavioral disturbances in dementia, sponsored by the MGS/MGA and the Geriatrics Committee of the MAFP at Keswick. No fee. Info: Joseph J. Gallo, M.D., M.P.H., 410-955-0599.	**June 11**
Age-related macular degeneration: update 1996	**June 14–15**
Lipid disorders training program—advanced update, Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150.	**Sept. 6**
Lipid disorders training program—basic course, credits: TBA. Fee: $250.	**Sept. 17–19**
Advances in pediatric nutrition, Stouffer Renaissance Harborplace Hotel, Baltimore, MD. Fee: $250/physicians; $200/residents.	**Oct. 28–30**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

The Johns Hopkins Medical Institutions (continued)

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Self-Directed CME Activities

U.S. medical costs and values: primary prevention versus end stage treatment, monograph and test. Expires Aug. 1996, 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interaction: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous meetings

149th Annual meeting of the American Psychiatric Association, Javits Center, New York, NY. Info: Gus Cervini, 202-682-6142. **May 4–9**

Clinical auscultation of the heart, sponsored by the American College of Cardiology at the Gorman Building Auditorium, Georgetown University Medical Center, Washington, DC. 17 Cat 1 AMA credits. Info: 1-800-257-4739. **May 8–10**

Succeeding in the new age of perfluorocarbon liquids, sponsored by The Retina Institute of Maryland, Doubletree Guest Suites, Baltimore, MD. 5.5 Cat 1 AMA credits. Fee: $250. Info: Carol Love, 410-337-4500. **May 11**

Sixth annual current concepts in orthopaedics, sponsored by the Southern Medical Association, Omni Harbor Hotel, Baltimore, MD. Cat 1 AMA credits available. Fee: $295/SOA members; $359/SMA members; $495/all other physicians; $50/residents/fellows; $100/nonphysicians. Info: Michelle Williamson, 205-945-1840. **May 16–18**

48th Annual meeting, scientific session & exposition, sponsored by the Maryland Academy of Family Physicians, Sheraton Fontainebleau Hotel, Ocean City, MD. 26.5 Cat 1 AMA/AAFP credits. Fee: $280/members; $325/nonmembers; $110/allied health professionals. Info: Leonard H. Raucher, M.D., 410-747-1980. **May 16–19**

Miscellaneous meetings (continued)

Clinician-patient communication in managed health care conference, sponsored by the Bayer Institute For Health Care Communication, Hyatt Regency, Washington, DC. 12 Cat 1 AMA credits. Info: 1-800-875-4412. **May 30–June 2**

Systematic approach to the management of chest pain: a paradigm for re-engineering in medicine, sponsored by The School of Medicine, Medical College of Virginia, Virginia Commonwealth University, Williamsburg Marriott Hotel, Williamsburg, VA. 12.25 Cat 1 AMA credits. Fee: $450. Info: Bonnie Ware, 804-828-4980. **May 31–June 2**

31st Annual meeting of the Association for the Advancement of Medical Instrumentation, Philadelphia Marriott, Philadelphia, PA. Info: 703-525-4890, ext. 260. **June 1–5**

Third annual intensive review of internal medicine: an update for clinicians, sponsored by the George Washington University Medical Center, Crystal Gateway Marriott, Arlington, VA. 32 Cat 1 AMA credits. Fee: $575/physicians; $375/residents, fellows. Info: Deborah Karpowicz, 202-994-4285. **June 19–22**

Dynamic psychotherapy in the new era: possibilities and problems, sponsored by the American Psychiatric Association Office of Education, The Given Biomedical Institute, Aspen, CO. 18 Cat 1 AMA credits. Fee: $400/early registration; $450/after May 10, 1996. Info: Maria Gorrick, 202-682-6145. **July 29–Aug. 2**

PHYSICIAN'S RECOGNITION AWARD

During February 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

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George M. Boyer
Michael Brody
De Naye D. Brown
Ed B. Chung
Frank W. Davis
Michael Ereshevich
Richard A. Farson
Martin W. Graf
Eugene Guazzo
Raphael C. Haciski
Brett W. Katzen
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Nirmal Saini
James H. Segars
Michael L. Sherman
John A. Shutta
Michael K. Spodak
Robert F. Stephens
John P. Tomlinson
Wanda Tvarian
Stephen E. Warres
Robert B. Welch
Shirley Shu Lai Yang
Edward S. Yanowitz

Miscellaneous meetings (continued)

Continuously throughout the year

American College of Cardiology, The Heart House Learning Center, Bethesda, MD. Info: 1-800-257-4737.

Aggressive management of cardiovascular emergencies featuring the role of urgent echocardiography.	**May 1–3**
Nuclear cardiology for the technologist.	**May 6–8**
Recent advances in clinical nuclear cardiology featuring case review with the experts.	**May 9–11**
Pediatric cardiac catheterization update—1996.	**May 13–15**
Echocardiography: a clinical review—emphasis on TEE, stress echo and Doppler hemodynamics.	**May 23–25**
Peripheral artery disease: contemporary strategies for diagnosis and therapy	**June 3–5**
Advanced catheter ablation of cardiac arrhythmias.	**June 6–8**
Interpretative echocardiography: an advanced seminar in interpretation of two-dimensional, Doppler, stress, and transesophageal echocardiography.	**June 10–12**
Cardiovascular magnetic resonance imaging: an important technology of today, but a major approach of tomorrow.	**June 13–15**
Stent/Rotablator®/DVI: the new strategies for approaching the patient.	**June 24–26**

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 am. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, in the Zamoiski Auditorium on Thursdays, 9:00 - 10:00 a.m. Info: 410-578-5528.

PHYSICIAN PLACEMENT SERVICE

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

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Physicians wishing to locate in Maryland are invited to submit a résumé to be kept on file with the Physician Placement Service. Candidates are requested to inform the Faculty when they are no longer available for consideration opportunities in Maryland.

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To accomplish this goal, the editorial consultants seek original informative or philosophical manuscripts on addiction, recovery, practice/patient management, and mental health. Calls for manuscripts on specific subjects will appear in future *Straight Forward* issues.

REQUIREMENTS FOR ARTICLES

1. Maximum length 2,500 words (about 10 double-spaced typed pages)
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   f. first and last page number.
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For a copy of a transmittal letter to which you can add information specific to your article, call 410-962-5580 or 1-800-992-7010.

Send submissions to *Straight Forward*
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The managing editor will acknowledge receiving your submission immediately, and will notify you of its status for publication as quickly as possible, generally within a month. Thank you for your interest in *Straight Forward*.

The editorial consultants currently seek articles on the following topics:

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- addictions in the elderly;
- treating chronic pain in the presence of addiction;
- specialty-specific problems in managing addicted patients.

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Preventing the Spread of Vancomycin Resistance in Maryland
May 1996

Introduction

Clinical infection with vancomycin resistant enterococci (VRE) was first recognized among hospital patients in the Baltimore-metropolitan area in 1989.[1] Since this time, Maryland has experienced a rapid increase in the occurrence of VRE cases in many of its hospitals and long term care facilities (LTCFs). Indeed, vancomycin resistance among *Enterococcus* isolates has increased nation-wide. According to the CDC National Nosocomial Infections Surveillance (NNIS) system, the percentage of hospital-wide nosocomial enterococci resistant to vancomycin has increased from 0.3% in January of 1989 to 7.9% in March of 1993.[2,3] Much of this increase has been identified in the ICU. NNIS reports that during the same time period, ICU-specific enterococci isolates found to be vancomycin resistant rose from 0.4% to 13.6%.[2,3] Because enterococci are the third most common nosocomial pathogen, the growing presence of vancomycin resistance among these organisms is the focus of extreme public health concern. This concern is compounded by the experimental evidence suggesting that high-level vancomycin resistance can be transferred from *Enterococcus* species to *Staphylococcus aureus* (VRSA), which would essentially make this pathogen untreatable.[4]

Because of the public health threat posed by VRE, the Hospital Infection Control Practices Advisory Committee (HICPAC) has published recommendations to prevent the spread of vancomycin resistance.[5] These recommendations are based on the epidemiology of VRE infection/colonization with emphasis on the following three primary areas: (1) infection control practices (ICP), (2) clinical and laboratory VRE surveillance, and (3) appropriate vancomycin use. These three components, used in conjunction, should prevent the further spread of vancomycin resistance in both the hospital and LTCF.

Infection Control Practices

The most powerful method for the prevention of VRE transmission is the use of consistent and appropriate ICP. Containment of VRE outbreaks using heightened ICP, including gown and glove use and routine cleaning of environmental surfaces, has been documented.[6] In an attempt to increase the efficacy of infection control practices, HICPAC has published new recommendations for isolation precautions in hospitals.[7] These new recommendations are a synthesis of universal precautions, designed to protect against blood-borne pathogens, and body substance isolation, designed to protect against all pathogens. HICPAC has also made the VRE specific ICP recommendations which are summarized in Table 1. In addition to the above recommendations, infection control practitioners for LTCFs should refer to the Department of Health and Mental Hygiene *Guidelines for the Prevention and Control of Vancomycin-Resistant Enterococci (VRE) in Long Term Care Facilities* (March 1996).

Table 1. VRE Infection Control Practices:Recommendations*, Maryland Department of Health and Mental Hygiene, Epidemiology and Disease Control Program, May 1996.

The following infection control measures are recommended to prevent the transmission of vancomycin-resistant enterococcus (VRE):

1. hand washing when leaving a VRE case room; use chlorhexidine soap for hand washing.
2. use of gloves (or gown and gloves) during any contact which may involve infectious material.
3. hand washing immediately after use of gowns and gloves.
4. caution to avoid contacting contaminated surfaces or contaminating clean surfaces.
5. use of private or cohorted rooms for VRE cases.
6. thorough disinfection of patient-care equipment prior to use on another resident.
7. "terminal cleaning" of room upon discharge or transfer.

* Adapted from the CDC's "Recommendations for Preventing the Spread of Vancomycin Resistance: Recommendations of the Hospital Infection Control Practices Advisory Committee". MMWR 1995;44(RR-12).

Surveillance

Clinical and laboratory VRE surveillance plays a crucial role in the prevention and control of VRE. Only through the use of surveillance can an accurate measure of the VRE burden be assessed in the clinical setting. Surveillance culturing in the hospital setting has been used to assess the prevalence of VRE. In point-prevalence studies, VRE was isolated from 20% of a random sample of hospitalized patients, and half of these patients carried a strain known to be pathogenic to humans.[1] Laboratory based surveillance is also critical for identifying and reporting VRE cases to the appropriate personnel. The lab must be able to detect both high and low-level vancomycin resistance in order to have a high sensitivity for VRE recognition. Indeed, it is suspected that the true incidence of VRE is significantly under-reported due to the lack of surveillance and a failure to detect and report low-level vancomycin resistance in enterococcus isolates.[2]

Appropriate Vancomycin Use

The overuse of vancomycin has been implicated in promoting the increase in VRE. In several epidemiologic studies, vancomycin use has consistently been identified as a risk factor for VRE infection/colonization.[5] As a result, HICPAC has included recommendations for appropriate vancomycin use in their publication addressing the spread of vancomycin resistance (Table 2). Morris and colleagues also detailed the association of vancomycin use with VRE colonization/infection in their study of VRE prevalence at a university hospital.[1] In addition, this study incorporated a trial intervention using similar recommendations to those of HICPAC to curb unnecessary vancomycin use. Implementation of this policy resulted in a 59% decrease in IV vancomycin use and an 85% decrease in oral vancomycin prescriptions. Clearly, the potential for the overuse of vancomycin exists in almost every clinical setting. Although a significant decrease in the number of VRE cases was not seen after vancomycin restriction, Morris et al. suggest that the evaluation of this intervention after only six months may not reveal the true efficacy of this program. This would indicate that not only are programs evaluating the appropriate use of vancomycin necessary, but also be implemented consistently over a long period of time.

Table 2. Appropriate Use of Vancomycin: Recommendations*, Maryland Department of Health and Mental Hygiene, Epidemiology and Disease Control Program, May 1996.

The CDC has published the following recommendations for prudent use of vancomycin. These prescribing practices can minimize the development of vancomycin resistance.

Situations in Which Vancomycin Use May Be Appropriate:

1. Treatment of serious infections due to beta-lactam-resistant gram-positive microorganisms.
2. Treatment of infections due to gram-positive microorganisms in patients with serious allergy to beta-lactam antimicrobials.
3. Treatment of antibiotic-associated colitis which fails to respond to metronidazole or is severe and potentially life-threatening.
4. Prophylaxis, as recommended by the American Heart Association, for patients at high risk for endocarditis following certain procedures.
5. Prophylaxis for major surgical procedures involving implantation of prosthetic materials or devices at institutions with a high rate of infection due to MRSA or MRSE.

Situations in Which Vancomycin Use (oral or intravenous) Should Be Discouraged:

1. Routine surgical prophylaxis.
2. Empiric therapy for neutropenic patients, unless there is strong evidence for gram-positive infection and the prevalence of MRSA infections in the institution is substantial.
3. Treatment in response to a single blood culture positive for coagulase-negative staphylococcus, if other blood cultures drawn in the same time frame are negative (i.e., if contamination of the blood culture is likely).
4. Continued empiric use for presumed infections in patients whose cultures are negative for beta-lactam-resistant gram-positive organisms.
5. Prophylaxis for patients with central or peripheral intravascular catheters.
6. Selective decontamination of the digestive tract.
7. Eradication of MRSA colonization.
8. Primary treatment of antibiotic-associated colitis.
9. Routine prophylaxis for very low-birth-weight infants.
10. Routine prophylaxis for dialysis patients.
11. Treatment, chosen for dosing convenience, of infections due to beta-lactam-sensitive gram-positive microorganisms in patients with renal failure.
12. Use of vancomycin solution for topical application or irrigation.

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*Adapted from the CDC's "Recommendations for Preventing the Spread of Vancomycin Resistance - Recommendations of the Hospital Infection Control Practices Advisory Committee", MMWR 1995;44(RR-12).

Conclusion

The recomendations for heightened infection control, improved surveillance, and appropriate vancomycin use made by HICPAC are designed to provide a well-rounded, effective program for the control and prevention of VRE. However, all three areas must be simultaneously enhanced to attain optimum prevention of vancomycin resistance. Failure to implement these recommendations will allow continued growth of vancomycin resistance as a public health crisis. While the American Society for Microbiology (ASM) has called for increased research activity investigating new antibiotics,[8] none appear likely in the near future, and a decrease or termination of antibiotic research programs at many major pharmaceutical firms indicates that the arrival of new antibiotics on the market may be delayed for several years.[9] Therefore, it is crucial to effectively use the tools currently available to keep vancomycin resistance from increasing and potentially spreading to other organisms. Methicillin resistant *Staphylococcus aureus* (MRSA) serves as a model of what can happen when antibiotic resistance grows unchecked. As we enter the second decade of MRSA, with many hospitals and LTCF reporting endemic rates of colonization and infection, we see a disturbing trend. MRSA may be more wide-spread in the general community than previously appreciated and differences between community and hospital strains appear to be diminishing.[10] As with MRSA, VRE also exhibits the potential to move rapidly into the general community. VRE, and potentially VRSA, is not only a threat to the hospitalized or institutionalized, but also a public health threat to the entire Maryland community.

Recommendations

- Incorporate the new HICPAC infection control practices for VRE
- Improve existing surveillance systems for VRE
- Develop new surveillance systems for VRSA
- Assure appropriate vancomycin use
- Report any outbreaks of VRE or a single case of VRSA to the local health department

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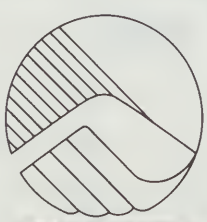
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Intensive therapy for insulin-dependent diabetes mellitus (3 or more daily insulin injections or continuous subcutaneous insulin infusion) **does not appear to be associated with neuropsychological impairment.** Results of the Diabetes Control and Complications Trial (a multicenter, randomized, controlled study involving 1441 patients aged 13 to 39 followed for up to 9 years) indicate that **repeated episodes of severe hypoglycemia, a risk associated with intensive therapy for IDDM, are not associated with the development of clinically significant cognitive impairment.** The authors nevertheless caution that intensive therapy should be adjusted to minimize the occurrence of severe hypoglycemia (*Ann Intern Med* 1996;124:379–388).

From 1993 to 1995, reported cases of primary and secondary syphilis in Baltimore City increased 97%, from 179 to 352 cases per year. The exchange of money or drugs for sex was a frequently reported risk behavior. **A community-wide expansion in crack cocaine use** that preceded the increase in reported syphilis cases **is postulated to be the primary contributing factor.** Data from the Drug Abuse Warning Network for 1990 through 1994 show the annual number of cocaine-associated drug abuse deaths in Baltimore City increased 737% and the annual number of cocaine-related emergency department episodes increased 239% (*MMWR Morb Mortal Wkly Rep* 1996;45:166–169).

Lipid levels: how low can they go? The National Cholesterol Education Program (NCEP) guidelines recommend lipid-lowering medication for patients with cardiovascular disease whose low-density lipoprotein cholesterol level exceeds 130 mg/dL despite a specialized diet. **Even with aggressive drug therapy,** however, **patients may fail to reach the NCEP LDL-C goal of 100 mg/dL.** Of the three available drug classes (bile-acid sequestrants, niacin, and statins), sequestrants and niacin are often associated with treatment-limiting side effects and monotherapy with a statin may be inadequate. Combination therapy, which may be effective, still requires the use of niacin or a sequestrant. In a retrospective study of 244 patients (*Am J Med* 1996;100:197–204), investigators found that **NCEP goals were particularly difficult to attain in patients with moderate to severe dyslipidemia (LDL-C >190 mg/dL).** Until better strategies to improve tolerance and adherence to existing therapies are delineated, the authors caution that a 30% to 40% reduction in LDL-C may be a more realistic target.

Patients who fail to respond to or cannot tolerate the side effects of fluoxetine (Prozac) may have the same problems with sertraline (Zoloft). Although one study has shown that patients intolerant of the side effects of one selective serotonin reuptake inhibitor (SSRI) can be successfully treated with another, results of a retrospective chart review (*J Clin Psychiatry* 1996;57:67–71) suggest that failure with fluoxetine may predict failure with sertraline as well. Of the 21 study patients who had previously discontinued fluoxetine because of side effects, 43% also stopped sertraline due to side effects; in several patients, the same side effects occurred with both drugs. Of the 18 study patients who had stopped fluoxetine due to lack of efficacy, 9 also stopped sertraline for the same reason. Speculating that there may be cross sensitivity with SSRIs, the authors nevertheless conclude that a trial with a second SSRI should not be ruled out, particularly in patients refractory to or intolerant of other classes of antidepressants.

Cite SEER

Low-dose aspirin and stroke—again. To try to resolve the recurring controversy regarding the relative efficacy of low or medium versus high doses of aspirin in secondary prevention after cerebral ischemia, Dutch researchers performed a mini-meta-analysis on data from 10 trials listed in the appendix of the report on the second cycle of the Antiplatelet Trialists' Collaboration. The analysis was limited to controlled trials of aspirin only, without other antiplatelet drugs, in 6171 patients. The investigators report that the **efficacy in secondary prevention after cerebral ischemia is similar for any dose of aspirin between 30 and 1500 mg/d.** Finding that **aspirin at any dose above 30 mg daily prevents only 13% of vascular events**, they conclude that more potent approaches for secondary prevention after cerebral ischemia are needed (*J Neurol Neurosurg Psychiatry* 1996;60:197–199).

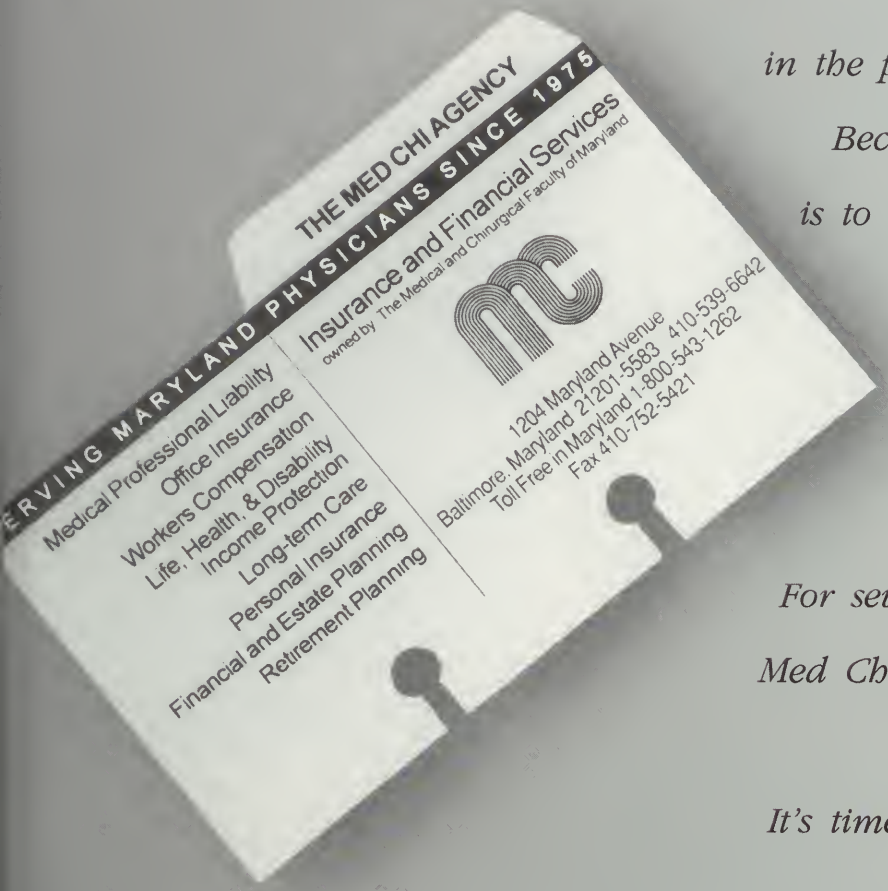
Subcutaneous low-molecular-weight heparin (dalteparin) plus aspirin and antianginal drugs appears to reduce the risk of new cardiac events in patients with unstable angina or non-Q wave myocardial infarction. In a prospective, multicenter trial involving 1506 patients, Swedish investigators compared the difference in death rate or new myocardial infarction during the first six days of treatment with dalteparin or placebo. **The protective effects of the dalteparin regimen were comparable to those reported for standard intravenous heparin added to aspirin.** Dalteparin reduced the need for IV heparin infusion and urgent revascularization by about 50%. The protective effect was not associated with age, sex, body mass, smoking habits, or whether treatment was started more or less than 24 hours since the last chest pain episode (*Lancet* 1996;347:561–568).

Cardiac Rehabilitation, Clinical Practice Guideline Number 17 from the Agency for Health Care Policy and Research, is now available. To order, call the AHCPR Publications Clearinghouse (800-358-9295). To obtain the *Guideline Technical Report*, which contains complete supporting materials for the clinical practice guideline, call the National Technical Information Service (703-487–4650) for price and ordering information.

Infectious discitis unrelated to previous spinal surgery or instrumentation is considered an uncommon cause of acute or subacute low back pain in adults. A recently reported review of 16 cases, however, suggests that it **should be considered in any patient who presents with severe, localized pain at any spinal level.** The report documents that **a wide variety of gram-positive, gram-negative, and fungal organisms may be involved, including *Propionibacterium acnes*, an organism not previously reported in this disease.** The authors recommend withholding treatment until a specific organism is identified, which may require disc culture; in 9 patients, blood cultures were negative but disc cultures were positive (*Am J Med* 1996;100:85–89).

Having fast food and lower cholesterol too. Must dietary control of low-density lipoprotein cholesterol be unpalatable to be effective? A study to determine the effect on hypercholesterolemia of incorporating quick-service meals in the National Cholesterol Education Program Step 1 diet suggests that **some patients can lower their LDL-C levels without completely foregoing their favorite foods.** Although subjects who were not allowed to eat quick-service foods showed a significantly greater reduction in their total serum cholesterol and LDL-C levels over time, the investigators conclude that **counseling hyperlipidemic patients on the sources and quantity of fat in their diets may produce results in keeping with NCEP goals** (*Arch Intern Med* 1996;156:305–312).

Spell it out—spell it *all* out. A recent case report describing frostbite of the eyelids due to ice compresses (*Arch Ophthalmol* 1996;114:226) reminded Cite Seer of the truism that common sense is anything but common. A 24-year-old patient who had been treated in the emergency room for a laceration below the left eye was discharged with instructions to use ice to reduce upper and lower eyelid swelling. At home, the patient applied ice compresses, which he secured with a towel wrapped around his head, then fell asleep because he was intoxicated. He was admitted to a burn unit three days later, underwent daily debridement of necrotic eyelid tissue, and required full-thickness skin grafting. The lesson? **Do not assume patients will use common sense in following treatment instructions.**



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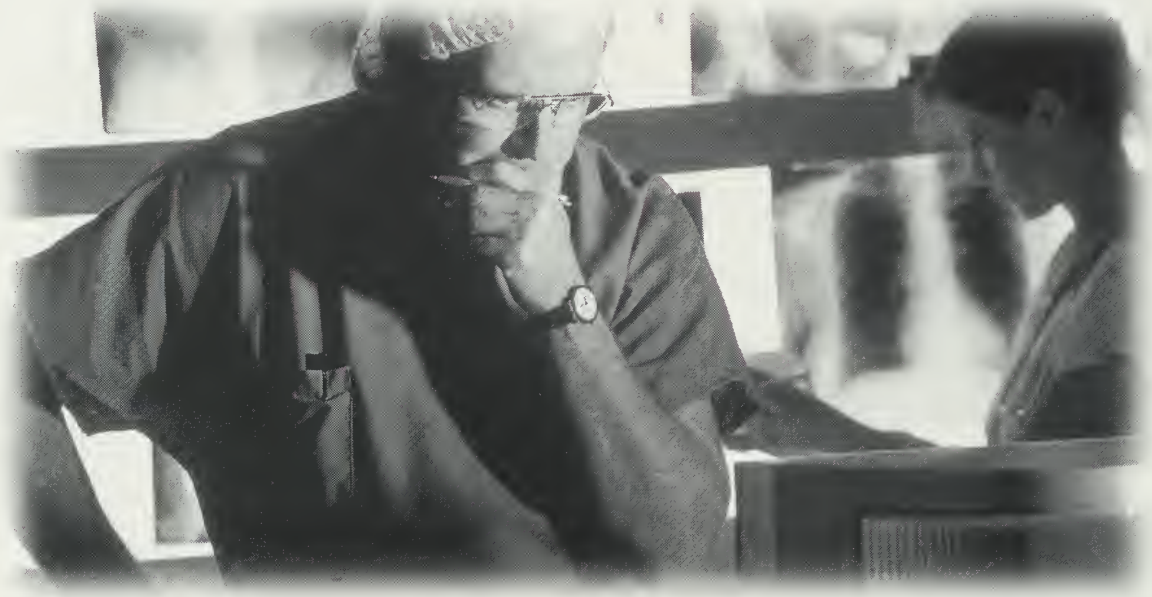
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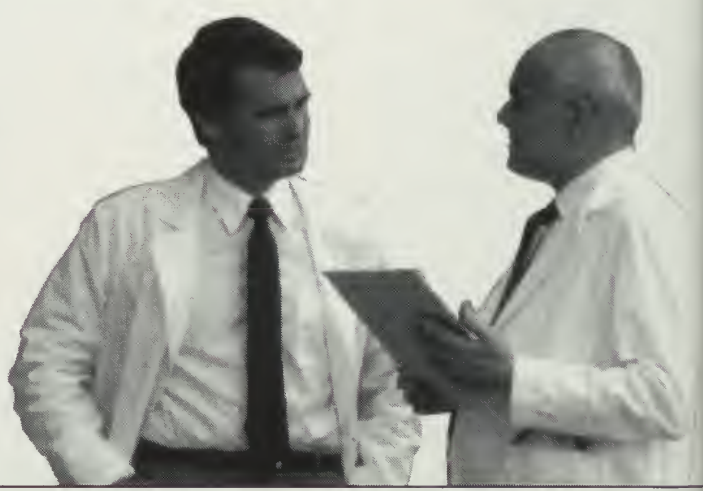
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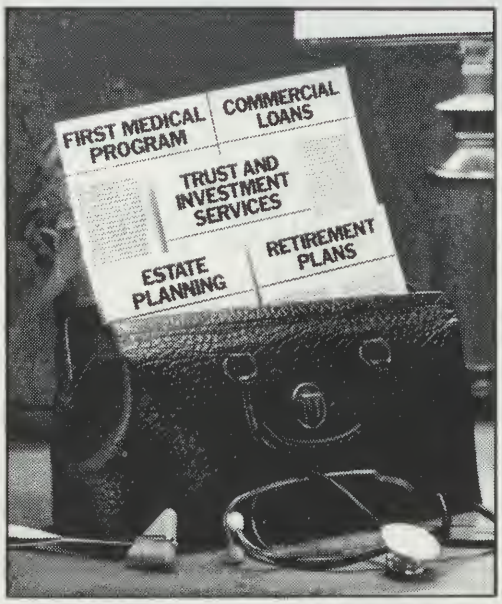
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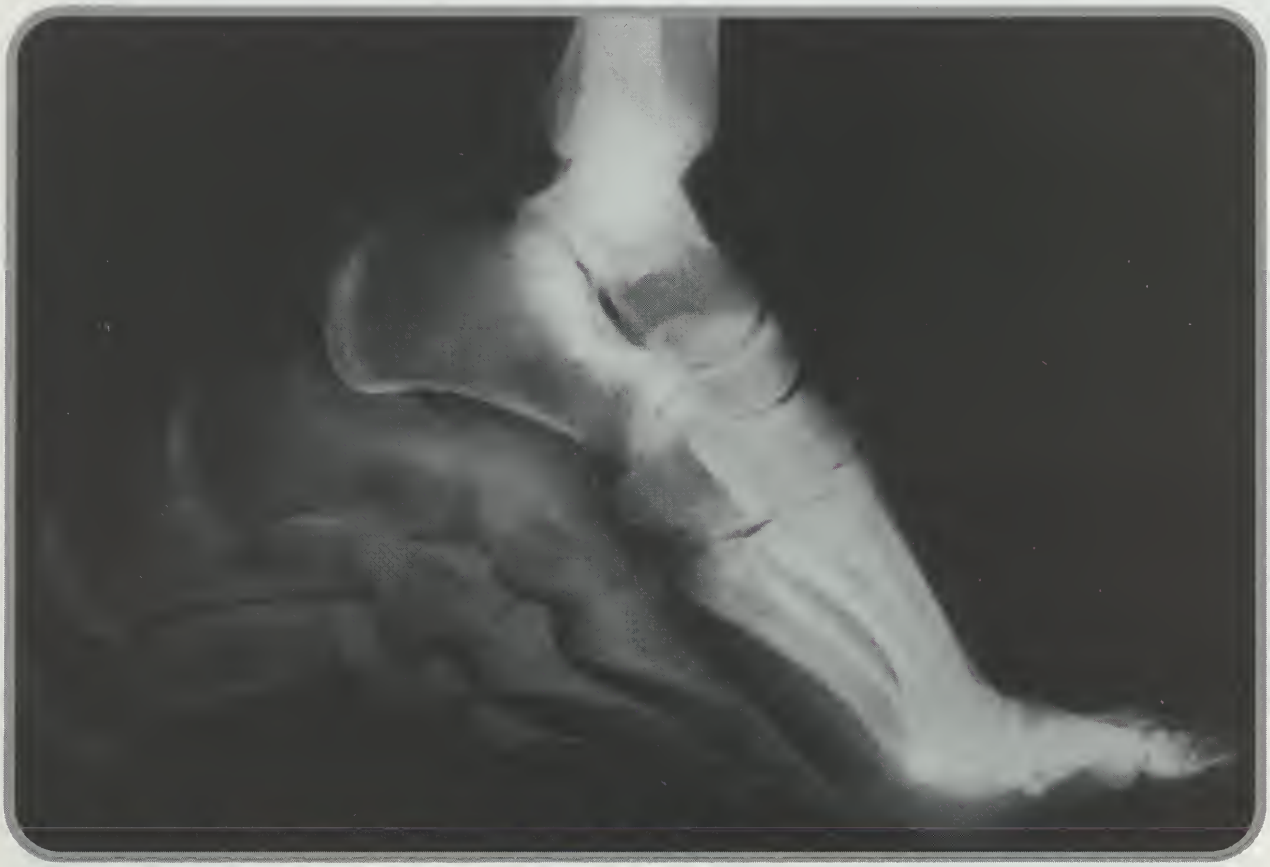
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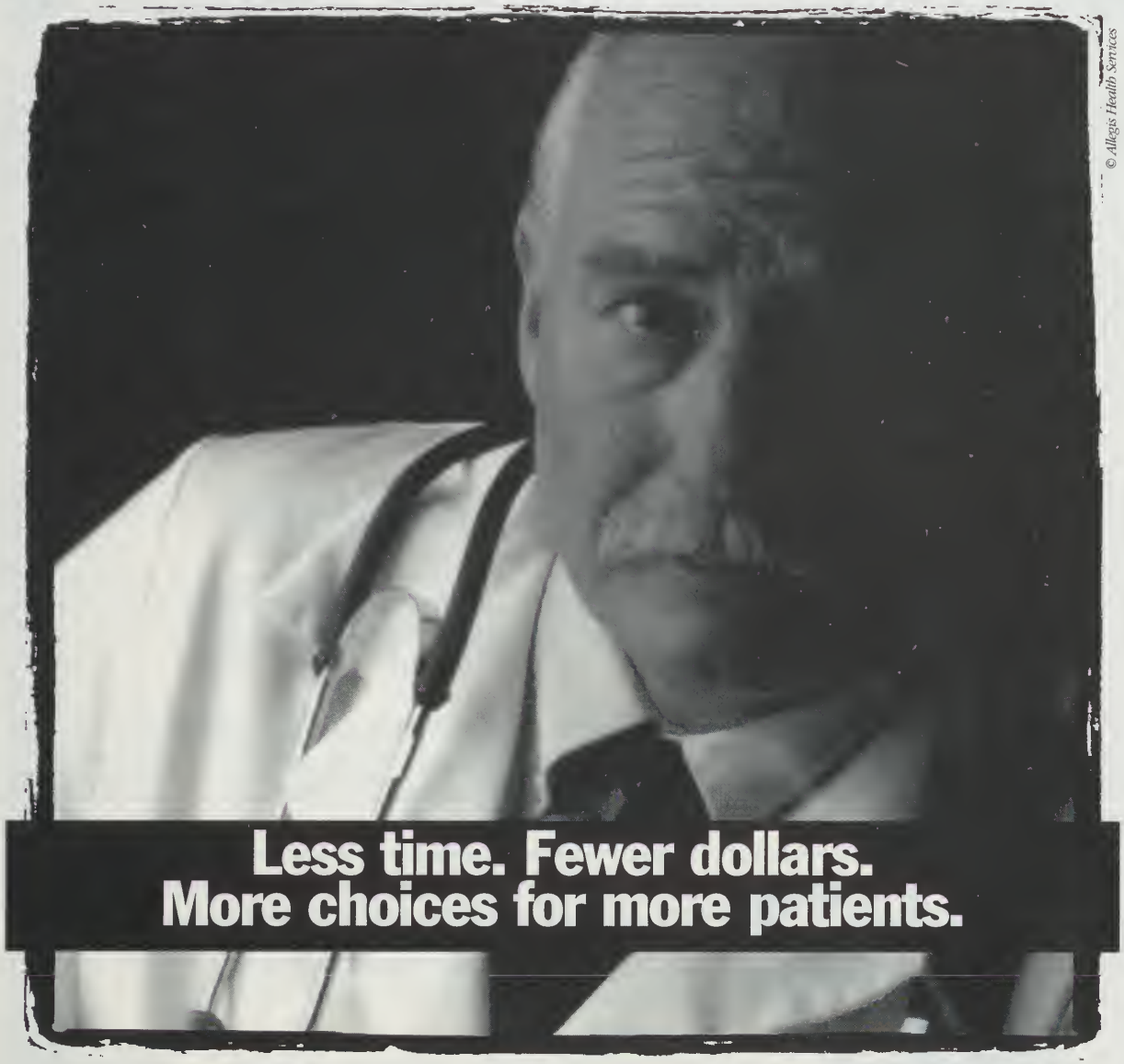
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Dr. Neal M. Friedlander, President & CEO and Dr. George Lowe, Chairman of the Board

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Chief Executive Officer's Newsletter

June 1996

1996-97 Med Chi Board of Trustees

Elections were held at the House of Delegates meeting during the Med Chi annual meeting on Saturday, April 27, at the Turf Valley Inn and Country Club in Ellicott City. Elected to Med Chi's Board of Trustees and AMA delegation were the following: Alex Azar, M.D., President; Thomas E. Allen, M.D., President-elect; Allan D. Jensen, M.D., Speaker of the House; Louis C. Breschi, M.D., Vice Speaker of the House; Albert L. Blumberg, M.D., Baltimore County Trustee; Howard M. Silby, M.D., Montgomery County Trustee; L. Thomas Divilio, M.D., Eastern County Group Trustee; J. David Nagel, M.D., Vice-Chair of the AMA Delegation; Joseph Snyder, M.D., AMA Delegate; Hilary T. O'Herlihy, M.D., AMA Alternate Delegate; Mark S. Seigel, M.D., AMA Alternate Delegate; and Carolynn M. Stocum, AMA Alternate Delegate. The Board of Trustees sets the policy and direction of Med Chi during the upcoming year. Congratulations to all of the newly elected officers.

Med Chi semiannual meeting set for September 6-8

Med Chi's semiannual meeting is slated for Friday, September 6 to Sunday, September 8, 1996, at the Sheraton Ocean City Resort and Conference Center in Ocean City, Maryland. Room rates are $135 per night for single/double occupancy (tax and incidentals not included). To reserve a room, call the Sheraton at 800-638-2100 and tell them you are attending the Med Chi meeting. Reservations must be made by August 5, 1996; however, Med Chi's block of rooms may fill before that date.

Patient information cards and hotline available

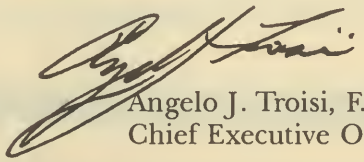
As the next phase of its continuing public education program on the Patient Access Act, Med Chi's Public Relations Committee has produced a second patient information card, "Health care plans may change, but you don't have to." The card tells patients about the Patient Access Act and the benefits of a point-of-service plan. The card also lists a tollfree telephone number that patients can call to hear more information about the various types of health insurance plans. The patient information cards are free to Med Chi members, and available in packages of 100. For a supply of cards, please call Jane Short in Med Chi's communication department at 410-539-0872 or 800-492-1056. The patient information hotline number is 800-874-6573.

New Compendium *now available*

The new edition of the *Compendium of Laws, Regulations, Opinions, and Policies Governing the Practice of Medicine in Maryland* is now complete. Med Chi members will find the new edition of the *Compendium* to be an extremely valuable reference. The *Compendium* was last revised in 1990, and the law affecting the practice of medicine has changed substantially since that time. The new edition contains many new subject headings, and its coverage of many existing subjects has been totally rewritten. Other improvements in the publication include a much more extensive and useful index, as well as new graphics. The *Compendium* is free to Med Chi members and may be purchased by nonmembers for $75. If you would like a copy, please contact Med Chi's Joyce Yensen at 410-539-0872 or 800-492-1056, ext. 309.

1996 Membership Directory *changes inside*

The changes and corrections to the *1996 Med Chi Membership Directory* can be found on pages 497-502 in this issue of the *MMJ*. Please note them for your reference purposes. If there are other changes or corrections that need to be made, please contact Wanda Griebel in the membership department at 410-539-0872 or 1-800-492-1056.



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Officer

Member Education Needs Survey

The 1996 annual meeting was a great success, and the Committee on Scientific Activity has received many compliments on the meeting's scientific sessions from our members. In order to continue to offer relevant programs for our members, Med Chi is asking each of you to take a few minutes and fill out the following survey. You can return the survey via fax to 410-547-0915, or via mail to Med Chi, 1211 Cathedral Street, Baltimore, MD 21201, Attn: Joan Mannion.

Educational Needs Survey

If I could attend just one **continuing medical education** (CME) activity in the next year, the topic would be

The most convenient day(s) of the week for me to attend CME sessions is

The most convenient time(s) of day for me to attend CME sessions is

If I could attend just one **practice management** program in the next year, the topic would be

The most important service that Med Chi can provide me with is

Recommendations for Med Chi program/services

The most significant challenge I face as a physician is

I currently participate in managed care (circle one) Yes No

Number of managed care plans for which I am a provider _____

Please indicate the following percentages of your practice

fee for service	%
discounted service	%
capitation	%

Medical
and Chirurgical Faculty
of Maryland

President's Letter

Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to members

Subject: The Patient Access Act: Standards for carriers for processing provider applications

Dear Colleague:

During the 1995 legislative session the Maryland General Assembly passed the Patient Access Act. The purpose of one particular provision in the Act is to provide standards for carriers to follow, in processing applications for participation in a carrier's provider panels.

Carriers are defined as insurers, nonprofit health service plans (Blue Cross and Blue Shield plans), HMOs, dental plans, and any other person or organization who utilizes a provider panel and provides health benefit plans subject to state regulation. A panel does not include a discount fee-for-service arrangement between a provider and a carrier.

The law stipulates that the carrier must:

- upon request, provide an application and information relative to consideration for participation
- make its application available publicly
- make efforts to increase the opportunity for a broad range of minority providers to participate
- review the application and then either accept or reject the provider
- if rejecting the provider, send written notification within 30 days
- if holding the application for credentialing, notify the provider of such and then within 150 days either accept or reject the provider in writing
- return incomplete applications to the provider within 10 days with information on how to complete the application
- charge a reasonable fee (optional)
- not deny the application nor terminate the provider on the basis of gender, race, age, religion, national origin, ADA category, nor on the number of appeals, complaints or grievances the provider filed under the carrier's internal grievance system

Patient Access Act

- not deny the application nor terminate a provider on the basis of the license, certification, or other authorization of the provider to render services if the carrier offers services within the provider's lawful scope of practice
- have the option to reject or terminate based on the participation of a sufficient number of similarly qualified providers
- establish an internal review system for grievances of participating providers
- not terminate a provider for advocating for a patient through the review system or for filing an appeal
- provide a list of panel members and a list of those who no longer take patients to new members and once a year to existing members
- provide members with information on the state office that receives complaints, the phone number and the process for filing a complaint
- continue to reimburse a provider who has been given notice of his/her termination from a carrier's provider panel for 90 days from the date of notification of termination, in accordance with the provider's agreement with the carrier.

The Maryland Insurance Administration (MIA) will be overseeing compliance with this provision of the Act. They have published proposed regulations that further clarify some of the points above. MIA will require a carrier to maintain an application log, publish in the newspaper, at least quarterly, information on how to apply, and retain the application and any related correspondence for three years. The application fee will not exceed $75.00, will be nonrefundable, and will be uniform for all within a specialty.

Questions concerning the law or the proposed regulations may be directed to the Maryland Insurance Administration, 501 St. Paul Place, Baltimore, MD 21202, or call (410) 333-2793.

Sincerely,

Alex Azar, MD

ALEX AZAR, M.D.
President

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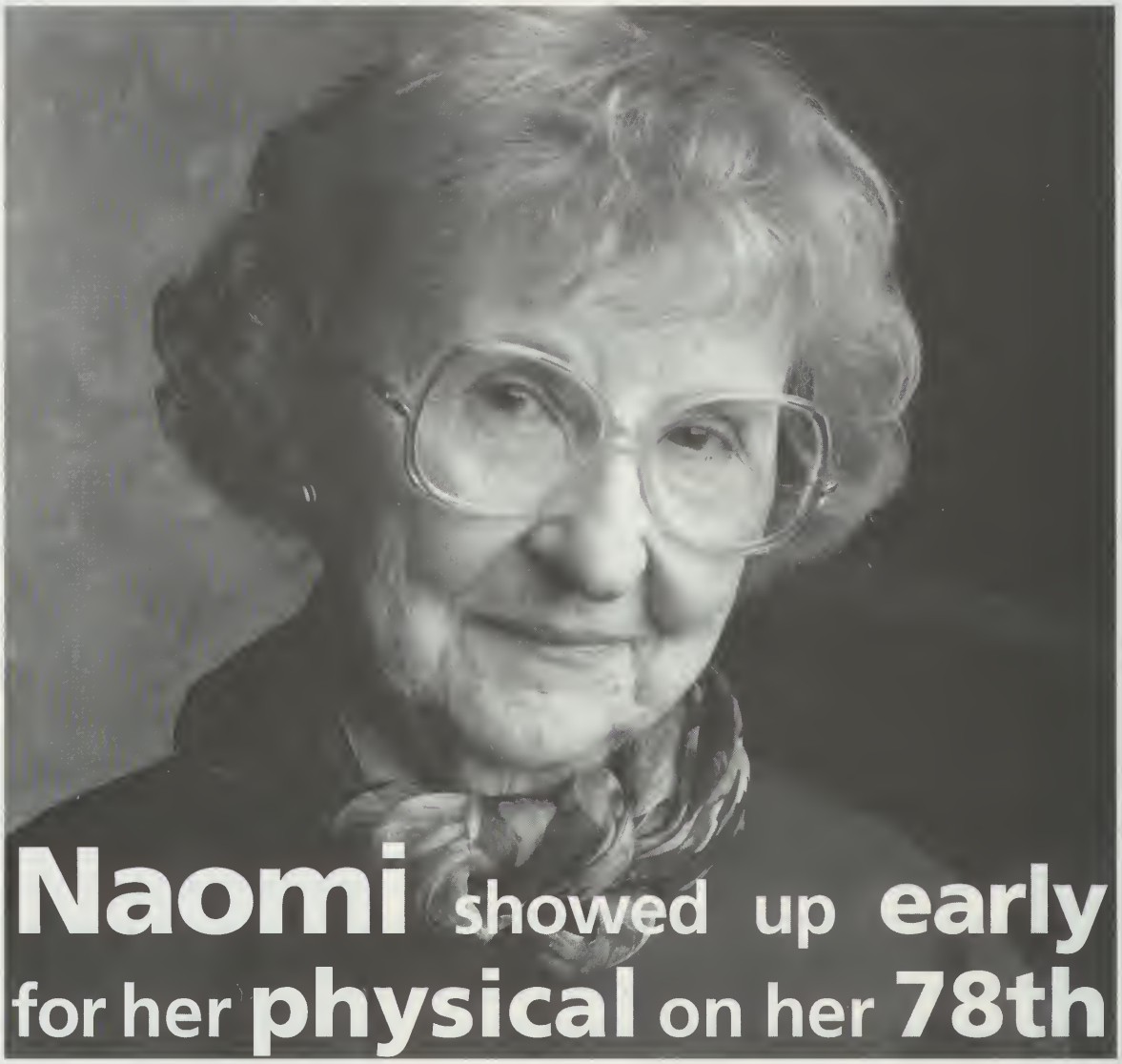


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American Medical Association
Physicians dedicated to the health of America

P. John Seward, MD

The AMA's new EVP talks about his vision for the future.



Photo by: Ted Grudzinski

What is your vision for the AMA?

To continue to reinforce our role as the primary national advocate for patients and physicians. In the most fundamental way, that is what medicine is all about. And the AMA can act on behalf of millions of patients. We continue in a good position to do this. We are financially secure and programmatically sound. We are strongly positioned as medicine's leader, and I see us continuing in that role.

How has your background prepared you for your current role as EVP?

I was a practicing doctor, with all the joys, problems, hassles, and tears that practicing medicine brings. I've also been the manager of a number of successful business enterprises and a longtime public official. All of this and my service as member and chair of the AMA have given me enormous experience and perspective for assuming this new role.

Some physicians are reluctant to join the AMA because they don't believe it represents their interests. What will you do about that?

The AMA currently represents physicians' interests. We have represented physicians in Washington on issues of health system reform, Medicare and professional liability, we have led the charge in public health issues such as domestic violence and tobacco, and we are currently evaluating the Federation and how it can better serve the needs of physicians and their patients. If physicians don't believe we are representing their interests, then we have to look at how we are delivering our message. We need to articulate and communicate the value of membership in a better way.

More and more women and minorities are becoming physicians. What is their incentive to join the AMA?

These are physicians whose talents and dedication will make health care better for all of us. Their incentive to join is representation and a chance to be an active participant in the changes in medicine as we prepare for the 21st century. The AMA has more female physician members than any other medical professional organization. We have a woman chair, Nancy Dickey, MD, for the first time in AMA history. We have Palma Formica, MD, and Regina Benjamin, MD, on the Board. We are seeing an increase in membership among minorities and international medical graduates because the AMA is seen as a solution to the hassles that they are facing.



The Federation study suggests changes in representation from state, county, and specialty societies. Will these changes significantly affect membership?

The AMA is a dynamic organization. We have been changing for years. The Federation study is just part of that change. The purpose of the Federation study is to give practicing physicians input in how their societies make policy so that they do not feel shut out. I believe that membership will increase as a result of the study.

How will the AMA help doctors educate patients about changes in Medicare and Medicaid?

We will work with the media – sending our Board members to editorial boards and radio and TV stations across the country to broadcast our message. We will provide members with updates on all our Medicare activities as we implement them. As we have always done, we will listen to physician input about our policies and work with America's physicians to bring about the best in health care for their patients.

Will the AMA continue public education and awareness programs on tobacco and domestic violence and other public health activities?

Definitely. Public education and public health have been

major AMA activities since our founding 150 years ago. As a Florida newspaper editorial said, maybe we don't really need a US Surgeon General as long as the AMA is around. The AMA is a recognized voice in public health issues and we take that responsibility very seriously.

How will the AMA help physicians gain more control over their careers during this time of change in physician's practice environments?



By continuing to inform physicians about our actions in Washington, about the environment in which they practice and about the best ways in which they can take control of their medical practice.

What are the AMA's 1996 legislative and political goals?

We still will be concerned with the issues we pursued in 1995. Last year was very busy, legislatively. We staked out our territory and stuck to it: Medicare, liability reform, doing away with hassles like Stark I and Stark II, CLIA and patient protections. We made tremendous headway. That agenda is still as cogent for 1996 as it was for 1995. If anything, the need to accomplish it is even higher. Just getting close doesn't excite me much. Now we have to say - "we can do it!"

You were the elected county coroner for 23 years. How did that prepare you for AMA leadership?

An old friend of mine taught me that good politics is good service, and good service is good politics. You had to earn their trust every day. It humbled me. It taught me to keep an open mind. Any time I jumped to conclusions, I was absolutely wrong. Team work is very important; you can't do it alone. I look at this job the same way. An EVP isn't supposed to be a hero. If anything, I would classify myself as a "designer" of bringing people together, helping inspire our team to do a better job.

How do you see the practice of medicine changing?

Medicine in some ways hasn't changed at all. It's still about providing the best care to individual patients. In other ways, it's changing hugely in what we can do for those patients. The cost of health care will continue to be a major issue. Anytime you upgrade, you create new concerns, specifically ethical ones. Will our ethics be able to keep up with how we apply technology to our practices? As professionals, we have to be leaders in this because it's our duty. The AMA has to help our physicians say, yes, we are still on course, but we are also advancing.

How will the AMA work to overcome the loss of collegiality and unite physicians in the future?

I'm an eternal optimist. Is collegiality irretrievably lost? I don't think so. As physicians, we all have so much in common – our devotion to medicine and to our patients, and the problems that affect us all in the practice of medicine. I'm confident that we have the motivation and the desire to work together. When you talk to physicians who are saddened, anxious and depressed, it doesn't matter what type of health care delivery system they're practicing in, they are still physicians. This is where the AMA can be the catalyst to redefine who and what we are. To show we all need to work together. This is a legacy issue. I want to make sure we leave the profession better off than what we found it. This is how I want to be measured.



How will your role differ from that of your predecessors?

I'm different and the times are different. The information age has brought everybody closer. When somebody sneezes in Seoul, Korea, it affects me in Rockford, Illinois. It's the same medicine. The AMA must continue to be better focused, more receptive, more efficient. We do not have the luxury of contemplation and inaction. We have to be faster on our feet.

What about Medicare reform?

The AMA is committed to transforming Medicare. We'll stay the course. The proposals we gave to Congress are still on the agenda. Patient choice. Quality of care. Physician-sponsored networks. Patient protection, medical liability, reform, relief from Stark I and Stark II, CLIA.

What about Medicaid Reform?

We want to make sure this vulnerable group receives adequate and appropriate care. They're patients. They're also family, neighbors, and friends. Standards have to be maintained to make sure that they do obtain care, whether it's by "block grants" or some other mechanism. We also have to consider long term care. On this and so many other critical issues, the AMA has to be a watchdog. We have to help define the road the country needs to take if all our patients are to get the care they need. ◆

Interview by Linda Stepanich.

American Medical Association
Physicians dedicated to the health of America

American Medical Association's New "EVP"

People and Patients — his "foremost priority"

by Arnold Collins

If the position of Executive Vice President of the American Medical Association continues to be as demanding as it was under former EVP James S. Todd, MD, then P. John Seward, MD, should do well in it, or so say many who have known and worked with him and who call themselves "privileged" to be his friend.

The job of EVP is "an uncommon one," according to Dr. Todd, who held the office for six years. "It's an all-consuming position with the need for multiple abilities to deal with politics, science, education, finances and a constituency. It's not placid. You're never fully prepared for it."



Photo by: Ted Grudzinski

But from physician to police detective to English teacher, Dr. Seward's friends describe the new EVP as a man who is part farm boy but cloaked in layers of scholarship, professionalism, and political savvy, and who is always the dedicated physician that he planned to be since the first grade at Francis Willard Elementary School in Rock Island, Illinois.

"It was probably our mother's long, chronic illness that influenced John to be a doctor. He knew from that time what he wanted to be," says Dr. Seward's sister and only sibling, Mrs. Ann Robinson, of Macomb, Illinois, an artist and retired English teacher. "We always hung together. Later, when our families were young, though we were living 100 miles apart, if a kid was sick or fell out of a tree, he was always there with sympathy and advice. He's always been a good listener."

Others echo that theme. "He is perceptive; he has a brightness and a quickness to size up situations and individuals," says William R. Felts, MD, who chaired the AMA Council on Legislation during Dr. Seward's early days as a Council member, and who credits Dr. Seward with "an almost innate ability to identify phonies." Dr. Felts, now Professor Emeritus at George Washington University Medical School, also extols Dr. Seward's dependability. "Count on him to do what he says. But above all he has a very, very high level of integrity. He's a really unique individual!"

"Doc Seward's a natural, born leader," says former Chief of Detectives, Gene Coots, of Winnebago County, Illinois, "He's always bringing people together, synergistically. He just knows how to do it and he's the best at it that I ever knew."

Detective Coots knows John Seward as few people do. They spent long, often tedious, sometimes harrowing, hours together as Dr. Seward fulfilled the role of Winnebago County Coroner. During the miserable times, it was Dr. Seward's companionship and sense of humor that brought the law officers through and "made the events memorable" for Coots. "Like the evening I was at a retirement party when Doc called me away because a body had been discovered near the cemetery. It was miserable weather and the body was found along the river bank. John realized it was an American Indian, buried 150 years ago. We spent half the night digging there, and sent the remains to the Smithsonian. Doc knew I'd missed a steak dinner. He kept promising to buy me a steak for breakfast but the best he could do after midnight was a plate of ham and eggs. Or the Christmas Day we left our families to determine why x-rays of a murder victim showed a

number of pellets we hadn't expected to find there. Doc was so methodical, he went through old hospital records half the night, eating Big Macs and cold fries while our families had a more traditional meal. He finally discovered ... [a prior wounding] when the victim wouldn't let them take the pellets out. Doc will work 'til he drops and he knows how to demand things of others and make them want to succeed. And the good of his staff is always on his mind."

The good-natured give-and-take of the Coroner's office once found Dr. Seward remarkably on the receiving end. On his 50th birthday, wife Dusty, his sister Ann and friends planned a surprise party for him that has to stand as a bench mark for surprise events. "We rented a restaurant hall in an old neighborhood of Rockford," Ann Robinson recalls. City and Sheriff's police were in on it. "The Deputy Coroner called John and said there had been a multiple mob slaying there. All the guests were lying on the ground, their outlines chalked on the floor, when the Coroner burst in. He was shouting, 'Don't anybody touch anything!' when the lights came up and the "victims" began to move. John was delighted with the way that we had set him up."

Well, naturally. A love of dramatics is an important side of P. John Seward. Many who frequented Rock Island's Community Theater still remember Seward as Falstaff in Shakespeare's "Henry IV" — or as Lennie, in Steinbeck's "Of Mice and Men." Then there was the two-hour one man show he did at the Medical School theater in Rockford, Illinois, with portrayals of the great speeches of the English language. "He could pitch his voice to the high tones of Abraham Lincoln," remembers Gene Coots, "or give you that Winston Churchill growl. But compliment him on an amazing performance and he won't go for any ego trips. He'll just say, "Oh, *you* could do that, just as well!"

The many parts of the man go together to make "the consummate politician," says retired family physician Charles Hair, MD, of Santa Paula, California, once Dr. Seward's Vice Chair on the Council on Legislation. "He's a farm boy whose expressed naivete is belied by his common sense, political savvy and silver tongue," says Dr. Hair. "Out of this farm boy come soliloquies that are beautiful to hear, but always he's the dedicated family practitioner. Patients always were — and always will be — his foremost priority."

Dr. Seward's friends agree that his unique combination of qualities and talents will continue to benefit the AMA. "He listens, he's receptive, keeps others in mind and can persuade without becoming confrontational," says Ann Robinson. "He'll continue to be the patients' advocate, while again proving himself a very effective manager," says Dr. Hair. "Colin Powell reminds me of Doc," Gene Coots believes. "He's concerned about the right things, about morality. He rises to leadership almost reluctantly but he's the epitome of leadership — nothing soft. He's loyal and unpretentious, and has quite an effect on people." "He's very capable and deserving, " says Dr. Felts. "He'll make a great EVP!"

Former EVP Dr. Jim Todd agrees. "John's strengths are in building consensus. He understands the political process. He has management experience. I don't think he's grasped the magnitude of what he's gotten himself into — but he's got all the attributes necessary!" ◆

P. John Seward, MD
Born 1939, Illinois

1990-1996	AMA Board of Trustees
1994-1995	AMA Chair BOT
1972-1995	Winnebago County Coroner
1965	MD, University of Illinois College of Medicine
	Residency – Family Practice – Mayo Clinic
	Diplomate, Amer. Academy of Family Physicians

Dr. Seward and his wife, Dusty, have three children.

Component Society Presidents Update



Montgomery County

Peter B. Sherer, M.D., is the 1996-1997 president of the Montgomery County Medical Society. Dr. Sherer earned his bachelor of science degree at the Rensselaer Polytechnic Institute in Troy, New York, and his medical degree at Albany Medical College. Following an internship at George Washington University Hospital in Washington, DC, he was commissioned an officer in the Public Health Service, serving in the Division of Blood Diseases and Resources at the National Institutes of Health. He completed residencies at the Veterans Administration Hospital in Washington, DC, and Albany Medical Center in New York, where he was chief resident, and was a fellow in hematology-oncology at George Washington University Hospital. Dr. Sherer has been in the private practice of hematology-oncology since 1979 and has served as co-medical director of Jewish Community Hospice since 1988. A diplomate of the American boards of internal medicine, medical oncology, and hematology, and a fellow of the American College of Physicians, he is also a member of the American Society of Internal Medicine, the Jacobi Medical Society, and the Washington, DC, chapter of the Phi Delta Epsilon Medical Fraternity. Dr. Sherer has been active in the Montgomery County Medical Society for many years, serving as chairperson of the CME Committee in 1983-1984; chairperson of the Voluntary Arbitration Committee in 1983-1984; treasurer in 1988; and vice president in 1989-1990.



Resident Component

Michael C. Sokol, M.D., the president of the Resident Component Society, received his medical degree from Jefferson Medical College of Thomas Jefferson University in 1993. After completing his internship at the Medical Center of Delaware in 1994, he entered the general preventive medicine residency program at the University of Maryland Medical System. As president of the Resident Component Society, Dr. Sokol has served as the resident observer on the Med Chi Board of Trustees, as well as the chairperson of the Maryland delegation to the American Medical Association's Resident Physician Assembly. He has also been a member of the Med Chi Public Relations Committee and the Baltimore County Medical Association's Ad Hoc Committee on Strategic Planning. In addition, Dr. Sokol has served as a member of the Ethics Committee of the University of Maryland Medical System. While an intern, he was vice-president of the Residents' Section of the Medical Society of Delaware and served on the Bioethics Committee of the Medical Center of Delaware. He has been an active member of the National Consortium of Resident Physician Organizations and the Association of Preventive Medicine Residents. After completing his residency this month, Dr. Sokol will become associate director of outcomes and performance assessment at a well-known pharmaceutical company.

Erratum

Stephen C. Jacobs, M.D., was incorrectly identified in the April issue (1996;45:292). Dr. Jacobs is head of the department of urology at University of Maryland Medical Center.

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LETTERS TO THE EDITOR

History appreciation

I am writing to let you know how much I appreciate Dr. Marion Friedman's contributions to the *Maryland Medical Journal*. His article on Dr. Ruhrah (1996;45:237–239) was a delight to read. The special edition on Maryland physicians in World War II published in November 1995 was so fascinating that I read the entire issue in two sittings. World War II went on while I was still a child, but I remember a great deal about it and my oldest brother was killed in France during the war. Dr. Friedman has a special ability to make history personal and interesting. I hope that he continues to do this for many years to come.

Bob W. Gayler, M.D.
Baltimore, Maryland
Clinical Director, Radiology
The Johns Hopkins Outpatient Center

I enjoyed Dr. Joseph Miller's article on the Baxley family published in the April issue (1996;45:324–326). As I recall, the Med Chi library has in its manuscripts collection original ledgers and possibly other material from the Baltimore General Dispensary. Also, I think the building still stands slightly north of the University of Maryland School of Medicine campus.

Michael A. Murray
Chicago, Illinois
Mr. Murray is vice president of federation relations for the American Medical Association.

. . . . . .

The Med Chi library does indeed have original materials from the Baltimore General Dispensary. Mr. Murray is also correct about the building itself. It is at the corner of Fayette and Paca streets in downtown Baltimore.

Letters To The Editor

The editorial board of the *Maryland Medical Journal* welcomes comments, criticisms, recommendations, and observations from all its readers. Please submit letters to

Editor
Maryland Medical Journal
1211 Cathedral Street
Baltimore, MD 21201-5585

Wade A. Lillegard, M.D., Chris Zukowski, D.O., and Janus Butcher, M.D., of the department of family practice at the Uniformed Services University of the Health Sciences in Bethesda, are the authors of an article reviewing the diagnosis and treatment of the more common upper-extremity injuries seen by primary care physicians. They state that many such injuries can be managed by the physician who thoroughly understands the functional anatomy of the injured structure, but add that it is important to recognize which injuries are best managed by an orthopedic surgeon (*Arch Fam Med* 1996;5:159–168).

Elijah Saunders, M.D., is the lead author of a review of clinical data on the effectiveness of a new generation of cardioselective beta-blockers and angiotensin-converting enzyme inhibitors in treating hypertension in black patients. The reviewers conclude that a new, low-dose, multimechanism agent that combines the cardioselective beta-blocker bisoprolol fumarate with hydrochlorothiazide is an appropriate therapeutic option for first-line therapy of hypertension in the black population (*J Natl Med Assoc* 1996;88:171–175). Dr. Saunders is an associate professor in the department of medicine and head of the division of hypertension at the University of Maryland Medical Center.

Richard D. Moore, M.D., M.H.Sc, and Richard E. Chaisson, M.D., are the authors of a study to determine the effect of contemporary clinical care on the natural history of opportunistic disease in an urban population infected with the human immunodeficiency virus (HIV). Results indicate that opportunistic infections and cancer complicating HIV infection are first occurring at more advanced immunosuppression than previously. Continued progress in the development of preventive therapy for opportunistic disease should lead to further improvements in survival and quality of life in patients with advanced HIV infection (*Ann Intern Med* 1996;124:633–642). Drs. Moore and Chaisson are associate professors of medicine at The Johns Hopkins University School of Medicine.

David J. Weinstock, M.D., is the coauthor of a survey to determine the frequency of emergencies in pediatric practices, assess office emergency preparedness, and explore practitioners' reasons for levels of preparedness. Results indicate that emergencies are common in pediatric practices, but problems in preparedness persist despite previous studies with similar findings and publication of guidelines. The authors conclude that practitioner awareness could be heightened by practical instruction in residency and continuing medical education courses and by publication of guideline summaries (*Arch Pediatr Adolesc Med* 1996; 150:249–256). Dr. Weinstock is from the division of pediatric critical care medicine at Shady Grove Adventist Hospital in Rockville.

Mark P. Schoenberg, M.D., H. Ballentine Carter, M.D., and Jonathan I. Epstein, M.D., are the authors of a review of pathology data to determine the contemporary incidence and clinical significance of urothelial abnormalities detected by frozen section analysis performed at cystectomy. They conclude that routine frozen section analysis of the ureteral margins at cystectomy may not be necessary for most patients undergoing cystectomy (*J Urol* 1996; 155:1218–1220). Drs. Schoenberg and Carter are associate professors of urology and Dr. Epstein is an associate professor of urology and pathology at The Johns Hopkins University School of Medicine.

Ramesh K. Khurana, M.D., is the author of a case study of five patients with posttraumatic headaches who had injury to the sympathetic nerves following whiplash injury. Results indicate that serious injury to the cervical sympathetic nerves can occur during whiplash and the sympathetic abnormalities may persist for several months. Disturbance of sympathetic function may have an effect on head pain in these patients (*Headache* 1995;35:614–620). Dr. Khurana is chief of the division of neurology at The Union Memorial Hospital in Baltimore.

Kurt Kroenke, M.D., and Frank J. Landry, M.D., M.P.H., are among the authors of a study to lower nonsteroidal anti-inflammatory drug (NSAID) costs while maintaining quality patient care and clinician satisfaction. The results indicate that for drugs with similar benefits and adverse effects, a "stepped formulary" approach requiring an initial trial of one of the less expensive agents can maintain physician prescribing choices and satisfaction while lowering costs (*JAMA* 1996;275:926–930). Drs. Kroenke and Landry are from the department of medicine at the Uniformed Services University of the Health Sciences in Bethesda.

Joseph A. DiGiuseppe, M.D., Ph.D., Mark A. Silberman, M.D., Grover M. Hutchins, M.D., and Paul M. Ness, M.D., are among the authors of a case report describing a liver transplant recipient who developed fatal autoimmune hemolytic anemia while under treatment with tacrolimus for allograft rejection, and in whom postmortem examination showed a clinically unsuspected posttransplant lymphoproliferative disorder. The authors conclude that autoimmune hemolytic anemia may be a novel mechanism of acute hemolysis in patients treated with tacrolimus and that acute hemolytic anemia in such patients may herald an occult lymphoproliferative disorder (*Arch Pathol Lab Med* 1996;120:282–285). Drs. DiGiuseppe and Silberman are postdoctoral fellows in the anatomic and clinical pathology division, Dr. Hutchins is a professor of pathology, and Dr. Ness is an associate professor of medicine and pathology at The Johns Hopkins University School of Medicine.

Brian E. Emery, M.D., is among the authors of a prospective, double-blind, randomized study to determine whether perioperative steroids affect the outcome of patients who undergo palatoplasty. The investigators report that the use of perioperative steroids was associated with shorter hospitalization (*Arch Otolaryngol Head Neck Surg* 1996; 122:267–270). Dr. Emery is from the division of otolaryngology-head and neck surgery at the University of Maryland Medical Center.

Richard Roettger, M.D., is among the authors of a study of the utility of percutaneous dilational tracheostomy with bronchoscopic guidance in 162 critically ill patients. Results indicate the procedure is safe and cost effective. Complications compared favorably with those associated with open tracheostomy. The authors conclude that major complications should be avoidable with continuous bronchoscopic observation during the procedure (*Arch Surg* 1996;131:129–132). Dr. Roettger is a clinical assistant professor of surgery at the Uniformed Services University of the Health Sciences in Bethesda.

Samuel Rodriguez, M.D., F.A.C.C., is among the authors of a double-blind, placebo-controlled, randomized dose-ranging study to evaluate the safety and tolerability of tirofiban, a nonpeptide platelet IIb/IIIa receptor antagonist, in high risk angioplasty patients. The study established a rational and generally well-tolerated dosing regimen, but had only limited power to detect tirofiban effects on adverse clinical outcomes after angioplasty (*J Am Coll Cardiol* 1996;27:536–542). Dr. Rodriguez is an assistant professor in the department of medicine, division of cardiology, at the University of Maryland Medical Center.

Lawrence M. Lichtenstein, M.D., Ph.D., is among the authors of a double-blind, placebo-controlled, triple-crossover study of the effects of loratadine and terfenadine on the induced nasal allergic reaction. Results indicate that both loratadine and terfenadine partially inhibit the early nasal response to allergen challenge and subsequent reactivity to a challenge with methacholine without affecting the influx of eosinophils into nasal secretions (*Arch Otalaryngol Head Neck Surg* 1996;122:309-316). Dr. Lichtenstein is a professor of medicine at The Johns Hopkins University School of Medicine.

What Your Patients
MAY BE READING

- "Body Language"
  Men's Health, May 1996
- "Cosmo's Update on Eating Disorders"
  Cosmopolitan, May 1996
- "Complete Guide to Fever"
  Parenting, May 1996
- "Breast-Feeding and Your Contraceptive"
  Glamour, May 1996
- "Mass Medicine: HMO Survival Guide"
  Shape, May 1996
- "The Natural Drug Culture. From Herbal Ecstasy to Melatonin: What are the Risks?"
  Newsweek, May 6, 1996
- "The Infection That Drives Women Crazy"
  Redbook, May 1996
- "Vaccination Special Issue"
  Mothering, April, May, June, 1996
- "How Safe is Anesthesia Today?"
  McCalls, May 1996
- "Choosing a Sports Medicine Physician"
  Muscle & Fitness, June 1996
- "Preventing Pelvic Inflammatory Disease"
  Glamour, May 1996
- "Uncovering New Clues to Cancer Risk"
  Scientific American, May 1996
- "The Melatonin Birth Control Pill—A Risk Free Contraceptive Option?"
  New Woman, May 1996
- "Brain Food: How to Eat Smart"
  Psychology Today, May/June 1996
- "What ER Doctors Wish You Knew"
  Child, May 1996
- "Toxic Legacy—Silicone Implants: Can They Make Your Baby Sick?"
  Shape, May 1996
- "Heal Yourself Without Drugs"
  McCalls, May 1996
- "Women At Risk"
  Fit, May/June 1996
- "The Problem with Herbal Remedies"
  Parenting, May 1996
- "Eating Away Cancer"
  Aspire, May 1996
- "Will a Drink Improve Your Health?"
  Good Housekeeping, May 1996
- "Drive-Through Delivery Backlash"
  Child, May 1996
- "Beta-Carotene: Is It Dangerous?"
  McCalls, May 1996
- "The Nine Month Miracle"
  Parenting, May 1996
- "Bad Medicine: The Doctors Who Could Cost You Your Life"
  Redbook, May 1996
- "Ovarian Cysts: What's Normal, What's Not"
  Glamour, May 1996
- "Can You Trust Your Pap Smear?"
  Ladies Home Journal, May 1996
- "Can Appendicitis Be Infectious?"
  Child, May 1996

Call for Instructive Case Reports

The editors of the *Maryland Medical Journal* believe all practicing physicians—generalists and specialists alike—are a fertile source of instructive, experienced-based clinical anecdotes. The most memorable anecdotes illustrate the art as well as the science of medical practice; they teach a lesson that goes beyond the "facts" of the case.

We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission Requirements

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

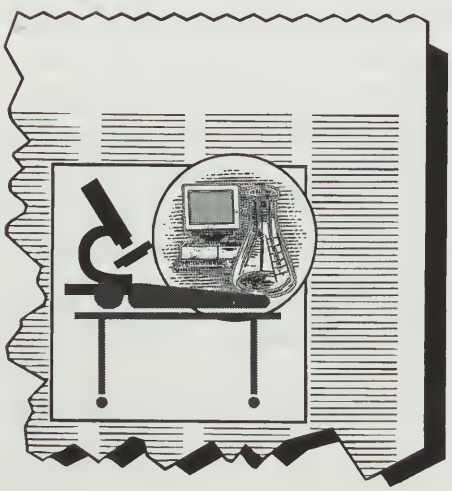
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The Editorial Board of the *Maryland Medical Journal* currently seeks original articles addressing topics related to

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- Assistive technologies for people with disabilities
- Pre-surgery medical considerations (e.g., in elderly, pediatric, or psychiatric patients; questions before emergency surgery).

Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.

All submissions should conform to Maryland Medical Journal requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor, 1211 Cathedral Street, Baltimore, MD 21201; 410-539-0872 or 1-800-492-1056; FAX 410-547-0915.



The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects),*

Information for AUTHORS

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  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

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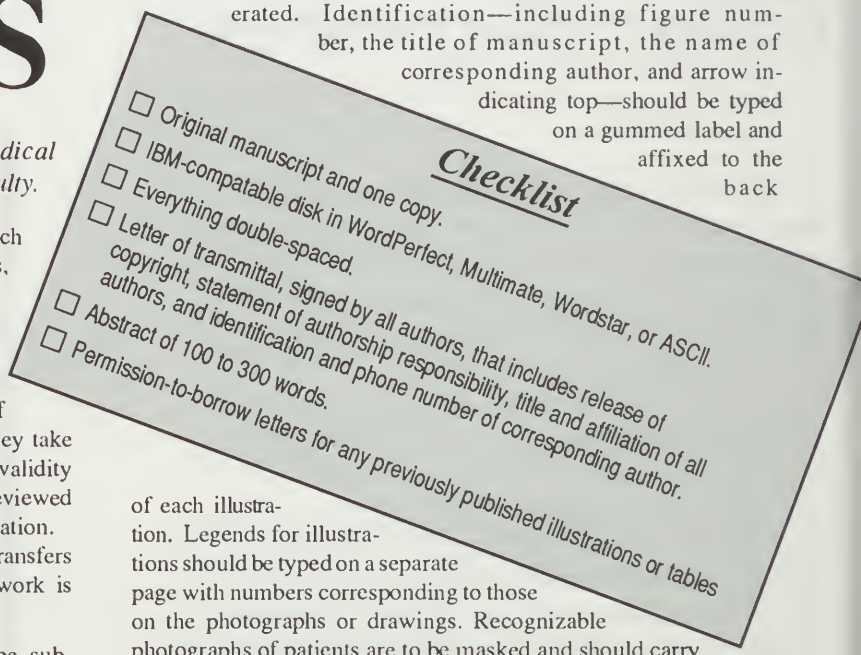
  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

- ***Illustrations***—Illustrations include material that cannot be set in type. Photographic material must be submitted as high-contrast, glossy prints. Drawings and graphs must be done professionally in india ink on high-grade white drawing paper or be computer generated. Identification—including figure number, the title of manuscript, the name of corresponding author, and arrow indicating top—should be typed on a gummed label and affixed to the back of each illustration. Legends for illustrations should be typed on a separate page with numbers corresponding to those on the photographs or drawings. Recognizable photographs of patients are to be masked and should carry with them written permission for publication. Cost of printing color photographs must be borne by the author.



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  Accepted manuscripts become the permanent property of the *MMJ* and are subject to copy editing. (The *Chicago Manual of Style* and the unabridged *Random House Dictionary of the English Language* are used as style guides.) The corresponding author is sent a reprint order form and galley proofs. S(he) then has 48 hours in which to make minor changes and clear all corrections and changes with co-authors; if proofs are not returned by the specified date, they will be considered approved as typeset. ■

Single (culprit) vessel disease in octogenarians with acute myocardial infarction and unstable angina

Khin Maung U, M.D., Ph.D., Viput Mantadilok, M.D., Anil K. Fatterpaker, M.D., and Raymond Bahr, M.D.

From St. Agnes Hospital, Baltimore, where Drs. U and Mantadilok are residents in internal medicine, Dr. Fatterpaker is the assistant director of the coronary care unit, and Dr. Bahr is director of the Paul Dudley White Coronary Care System.

ABSTRACT: *It is generally thought that coronary artery disease (CAD) in octogenarians would involve multiple vessels. The purpose of the current study was to determine the relative importance of single vessel disease in octogenarians with acute myocardial infarction (AMI) and unstable angina and its outcome from a revascularization procedure such as percutaneous transluminal coronary angioplasty (PTCA) or coronary artery bypass grafting (CABG). Our study included 70 patients (25 men, 45 women) aged 80 or older (mean, 84.5±0.5) admitted for the first time to the St. Agnes Hospital coronary care unit during 1994 for AMI or unstable angina. Patients admitted primarily for congestive heart failure, cardiogenic shock, hypertensive heart disease, or cardiomyopathy were excluded. Fifty patients (71.4%) had AMI and 20 (28.6%) had unstable angina. Of the 19 patients who had cardiac catheterization done, 10 had single vessel disease, 8 had flow-limiting disease in 2 or more coronary arteries, and 1 had no flow-limiting disease. The mean ejection fraction was 56.5±6.9 in patients with single vessel disease, 48.0±3.3 in those with multiple vessel disease, and 38.7±1.7 in those who did not have cardiac catheterization done. Fourteen PTCA (20%) and 3 CABG (4.3%) were performed without in-hospital mortality from the procedures. There were 9 deaths (12.9%) overall: none among 10 patients with single vessel disease, 1 (12.5%) among 8 patients with widespread CAD, and 8 (15.7%) among 51 patients who did not have cardiac catheterization. Study results emphasize the need for recognition and treatment of single vessel disease by revascularization procedures to reduce mortality from CAD in octogenarians.*

Table 1. Patient characteristics

	Culprit vessel disease	Multiple vessel disease	No catheterization	All patients
• Number of patients	10	8	49	70*
• Men:women	4:6	4:4	15:34	25:45
• Age				
• Mean (SE)	82.1 (0.5)	83.1 (1.3)	85.2 (0.5)	84.5 (0.4)
• Median	82	82.5	85	84
• Chest pain (hours) prior to arrival at hospital				
• Mean (SE)	9.1 (3.2)	9.5 (7.7)	6.8 (1.4)	7.5 (1.5)
• Median	7.2	1.5	4.0	4.0
• Ejection fraction (%)				
• Mean (SE)	56.5 (7.0)	48.0 (3.3)	38.7 (1.7)	42.4 (1.8)
• Median	62.0	45.5	37.5	40
• Days in hospital				
• Mean (SE)	5.3 (0.8)	6.0 (1.4)	9.3 (0.9)	8.4 (0.7)
• Median	5.5	5.0	8.0	7.0

* *Includes 1 patient who had cardiac catheterization done and was found to have no flow-limiting disease in any coronary artery and 2 patients who were brought in cardiopulmonary resuscitation and died on arrival in the coronary care unit.*

The 1990 U.S. census counted 31.1 million citizens aged 65 and older (12.5% of total population), which is expected to increase by 65% by the year 2020.[1,2] Coronary artery disease (CAD) is highly prevalent among the elderly, accounting for most of the hospital admissions for cardiovascular disease. There is a general reluctance to perform revascularization procedures in the elderly because the perceived risks are thought to outweigh any potential benefit. Medicare data show that most elderly patients aged 80 and older with CAD are treated conservatively.[3] The reason is partly because of the belief that the age of octogenarians inherently limits the capacity of any treatment modality to reduce mortality substantially and prolong life and partly because the use of invasive procedures such as percutaneous transluminal coronary angioplasty (PTCA) or coronary artery bypass grafting (CABG) to prevent recurrent cardiac events would be expected to produce higher in-hospital and long-term mortality rates than in those treated conservatively.[4] On the other hand, national hospital discharge survey data showed that in patients aged 65 and older, the use of PTCA increased from 4.3 per 10 000 cases in 1984 to 15.0 per 10 000 cases in 1986, and that the use of CABG increased from 22.8 per 10 000 cases in 1984 to 32.4 per 10 000 cases in 1986.[5] Despite a theoretically higher risk, unadjusted 30-day mortality after PTCA and CABG decreased by 37% and 18%, respectively, and 1-year mortality decreased by 22% and 19%, respectively.[5] The current study was conducted to determine the characteristics of single (culprit) vessel disease and its outcome following PTCA or CABG in octogenarians admitted for the first time with a diagnosis of acute myocardial infarction (AMI) or unstable angina. *Culprit* refers to a critical, single vessel blockage that places the patient at risk for sudden death, impending myocardial infarction, or ischemia that interferes with the quality of life. Extensive surgery (CABG) may not be considered an alternative, but PTCA for the culprit correction may be acceptable.

Patients and methods

Between January 1 and December 31, 1994, 203 patients aged 80 or older were admitted to the St. Agnes Hospital coronary care unit (CCU). The study sample comprised all patients aged 80 years or older admitted for AMI or unstable angina as identified by Clinical Modification (ICD-9) codes of the International Classification of Diseases 1995 revision. Study patients had the following diagnosis codes: 4111 for unstable angina, 41001 for anterolateral wall AMI, 41011 for anterior wall AMI, 41021 for inferolateral wall AMI, 41031 for inferoposterior wall AMI, 41041 for inferior wall AMI, 41051 for lateral wall AMI, 41061 for posterior wall AMI, 41071 for subendocardial AMI, and 41091 for AMI of unspecified site (the last digit 1 indicating that this was the first attack). Patients who had multiple admissions to the CCU during the study period were counted only once for their first admission to CCU for AMI or unstable angina. Exclusion criteria included incomplete patient data or congestive heart failure, cardiogenic shock, hypertensive heart disease, or cardiomyopathy as the primary reason for admission.

We conducted a retrospective chart review of all study patients. Data were transcribed into a standard proforma and

validated before being entered into a computer database. We used CRunch Interactive Statistical Package (CRISP) software (manufactured by Crunch Software Corporation [1986], 2547 22nd Avenue, San Francisco, CA 94116) on an IBM PS/1 computer for data processing.

Table 2. Site of myocardial infarction

	Culprit vessel disease	Multiple vessel disease	No catheterization	All patients
• Number of patients	10	8	49	70*
• Number with unstable angina	6	4	10	20
• Number with AMI in				
◦ anterolateral wall	0	1	2	3
◦ anterior wall	0	0	10	10
◦ inferolateral wall	0	0	2	2
◦ inferoposterior wall	0	0	1	1
◦ inferior wall	2	1	5	8
◦ lateral wall	0	0	1	1
◦ posterior wall	1	0	0	1
◦ subendocardial	1	2	10	13
◦ unspecified site	1	0	9	10

** Includes 1 patient who had cardiac catheterization done and was found to have no flow-limiting disease in any coronary artery and 2 patients who were brought in cardiopulmonary resuscitation and died on arrival in the coronary care unit.*

Results

During 1994, 1035 patients were admitted to the CCU. Of these, 203 patients aged 80 or older were admitted for cardiovascular diseases (AMI, unstable angina, pulmonary edema, cardiogenic shock, arrhythmias, cardiomyopathy with congestive heart failure, etc.), of whom 81 were admitted for the first time for AMI or unstable angina. We excluded 11 patients (13.6%) whose charts contained incomplete data or were untraceable. Data on the remaining 70 charts were examined.

Of the 70 patients studied, 19 had cardiac catheterization done at St. Agnes Hospital. One patient did not show flow-limiting disease in any coronary vessel. Ten patients were found to have culprit vessel disease (AMI or unstable angina attributable to a flow-limiting lesion where an occlusion of 80% or more in one coronary artery was present): 3 had flow-limiting disease of the left anterior descending coronary artery, 3 had 90% to 100% occlusion of the right coronary artery, and 4 had occlusion of the circumflex coronary artery. The remaining 8 patients had flow-limiting disease involving a combination of the left anterior descending, right coronary, and circumflex coronary arteries. None of the patients had flow-limiting disease of the left main coronary artery. Characteristics of patients with culprit and multiple vessel disease and those in whom cardiac catheterization was not done are shown in **Table 1**.

Patients with culprit vessel disease were found to have a relatively larger mean ejection fraction, slightly younger mean age, and relatively shorter mean length of hospital stay compared to patients with multiple vessel disease and those in whom cardiac catheterization was not done. The differences, however, were not statistically significant.

None of the study patients with single or multiple vessel disease had anterior wall, inferolateral wall, lateral wall, or inferoposterior wall infarction (**Table 2**).

Percutaneous transluminal coronary angioplasty was performed in 14 patients (**Table 3**). Of these, 8 patients had culprit vessel disease, 5 had multiple vessel disease, and 1 did not have cardiac catheterization done at St. Agnes Hospital but was transferred to another hospital for cardiac catheterization and PTCA. Coronary artery bypass grafting was done in 3 patients: 1 with culprit vessel disease, 1 with multiple vessel disease, and 1 in whom cardiac catheterization was not done. There were no in-hospital deaths among the patients treated with either revascularization procedure.

Among the 70 study patients, 9 (12.9%) died (**Table 3**). No patient with culprit vessel disease died. There was 1 death among 8 patients with multiple vessel disease (12.5%). Two patients were admitted to the CCU while in cardiopulmonary resuscitation for ventricular fibrillation, and both died. Among the remaining 49 patients in whom cardiac catheterization was not done, there were 6 deaths (12.2%).

Discussion

The 12.9% overall mortality rate (9 of 70 patients) in the current study may be partly attributable to relatively long

delays in the patients' arriving at the hospital; the mean and median delays for the whole population were 7.6 and 4 hours, respectively. In one study, data analyzed by multivariate regression analysis indicated that old age is one of the factors significantly associated with delays in hospital arrival of more than 2 hours.[7] In the TIMI II study, fewer patients aged 65 to 70 received treatment with recombinant tissue-type plasminogen activator within 2 hours or less of symptoms onset.[8] The reason for such delays may be that in the elderly the diagnosis of CAD is problematic because older patients often present with atypical symptoms or are asymptomatic.

Our study showed culprit vessel disease in 10 of 19 patients (52.6%) and multiple vessel disease in 8 of 19 (42.1%), with occlusion of the left anterior descending (LAD) coronary artery in only 1 patient (12.5%) among the latter group. This is in contrast to the Bypass Angioplasty Revascularization Investigation (BARI) study, in which coronary angiography showed 3-vessel disease in 41% of patients and disease of the LAD predominated in 87% of patients.[9] In the TIMI II study, the percentage of those with multiple vessel disease was highest in the older patients ($P=0.001$). In that study, the highest mortality rate occurred in the older patients (13.6% - 99% CI = 10.9% - 16.9%), particularly when the infarct location was anterior (18% of study patients).[8]

In the Medicare data study, cardiac catheterization was performed in only 15% of patients aged 75 or older who were hospitalized with CAD.[3] Among our 70 study patients, cardiac catheterization was performed in 19 (27.1%). Jaglal and colleagues[10] reported that in a population study of 6949 patients with AMI, men were more likely than women to undergo angioplasty. However, more women are surviving to an elderly age, and our study population included a larger proportion of women. Although in the current study the male to female ratio of cardiac catheterization was 9:10, more elderly women (M:F = 5:9) had revascularization procedures, particularly PTCA (Table 3). In their series of patients aged 80 and older who underwent PTCA, Forman and coworkers[11] also reported a preponderance of women (61%).

In the Medicare data study, only 6% of patients underwent PTCA or CABG.[3] By contrast, 25% of our study patients (17 of 68, excluding the 2 in cardiopulmonary resuscitation who died on arrival) had either PTCA (14 patients or 20.6%) or CABG (3 patients or 4.4 %) performed. There was no in-hospital mortality with either procedure; our study sample size, however, was small. In a study of multi-lesion PTCA in 210 elderly patients aged 70 to 92 compared to 210 younger patients aged 40 to 69, successful PTCA of at least one vessel was achieved in 89% of patients, and successful dilatation of all lesions was achieved in 77% of elderly patients.[12] Only circumflex coronary artery dilatation was less successful in the elderly (75%) compared to younger patients (91%). In a long-term follow-up study of 125 patients aged 75 to 90 with unstable angina treated by PTCA, Renyen and colleagues[13] also showed that the success rate (89%) of PTCA in elderly patients was comparable to that in younger patients and that a successful procedure leads to continued relief of symptoms.

Table 3. Treatment and outcome

	Culprit vessel disease	Multiple vessel disease	No catheterization	All patients
• Number of patients	10	8	49	70*
• Medical treatment				
• Number given TPA	2	1	7	10
• Number given heparin	10	7	32	49
• Number given Tridil	10	8	41	59
• Number given aspirin	10	8	45	63
• Revascularization procedures				
• Number PTCA performed (men:women)	8(3:5)	5(2:3)	1(0:1)	14(5:9)
• Number CABG performed (men:women)	1(1:0)	1(1:0)	1(0:1)	3(2:1)
• Outcome				
• Deaths (%)	0	1(12.5%)	6(12.2%)	9(12.9%)**

* *Includes 1 patient who had cardiac catheterization done and was found to have no flow-limiting disease in any coronary artery and 2 patients who were brought in cardiopulmonary resuscitation and died on arrival in the coronary care unit.*

** *Includes 2 patients who were brought in cardiopulmonary resuscitation and died on arrival in the coronary care unit.*

McGrath and coworkers[14] reported that although the perceived rate of complications after CABG compared to PTCA is higher, the rate of adverse events after PTCA can be equally high in the elderly. However, although the total procedural complications increased with age among octogenarians who underwent PTCA requiring long hospital stay, critical complications (MI, reocclusion, CABG, death) did not, and there was no increase in repeat PTCA, CABG, and MI with age.[11] Mick and colleagues[15] also reported that among octogenarians who underwent revascularization with PTCA (53 patients) and CABG (142 patients), the incidence of procedural complications including MI (6% and 4%, respectively), stroke (O% and 4%, respectively), and hospital mortality (6% and 2%, respectively) was not significantly different. Ko and associates[16] reported on 177 octogenarians who underwent cardiac catheterization over a 5-year period; 65 had significant CAD, among whom 36 underwent CABG and 29 received maximization of medical therapy. The 3-year probability of survival rates for surgically treated patients and medically treated patients were 77.4% and 55.2%, respectively, with the surgically treated group improving significantly on the New York Heart Association functional class.

Our study shows that AMI or unstable angina in octogenarians can be attributed to culprit vessel disease in a substantial proportion of patients, that culprit vessel disease is associated with a larger ejection fraction, that octogenarians with CAD underwent revascularization procedures with relatively low morbidity, and that they should be considered for revascularization procedures despite their advanced age.

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Worth Repeating

"The key to diagnosing a choledochal cyst is to consider it. . . ."

Source: Sela-Herman S, Scharschmidt BF. Choledochal cyst; a disease for all ages. *Lancet* 1996;347:779.

Use of gamma detecting probe and isosulphan blue to localize sentinel node in patients with malignant melanoma

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ABSTRACT: *Elective lymph node dissection for patients with malignant melanoma remains controversial. Sentinel lymph node sampling has been recommended to select patients who will benefit from lymphadenectomy. Vital blue dye and a gamma detecting probe have been used to identify the sentinel node. Two patients are described in whom microscopic disease was identified in the sentinel node as the sole focus of metastasis. The ability to excise the sentinel node provides accurate pathologic and staging information, is cost effective, and minimizes the morbidity associated with a routinely performed lymphadenectomy.*

The incidence of malignant melanoma in the United States is increasing faster than that of any other cancer. It is estimated that by the year 2000, 1 person in 90 will develop malignant melanoma.[1] The issue of when to perform a lymphadenectomy has been debated in several studies. Studying the spread of cutaneous melanomas, Morton and coworkers[2] in 1992 described the concept of a sentinel node, which is the node nearest to the lesion and the one most likely to be involved in the metastatic process (**Figure 1**). They also described the technique of sentinel lymph node sampling to limit lymph node dissection to patients with positive histologic findings. This approach has been shown to have a low false negative rate (less than 1.5%). Two techniques have been described to localize sentinel lymph nodes: vital blue dye staining[2] and the hand-held gamma detecting probe (GDP).[3] We illustrate these techniques in the management of two patients with melanoma.

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Case 1

A 48-year-old man presented 2 months after undergoing wide excision of a 3.8 mm thick (Clark's level IV) malignant melanoma over the posterior aspect of the right arm. The clinical examination showed no axillary lymphadenopathy. The advantages and disadvantages of prophylactic lymphadenectomy were discussed with the patient, who chose the surgery. At the time of the operation, isosulphan blue (1% in aqueous solution, Zenith Parenterals, Rosemont, IL) 1 cc was injected intradermally around the four quadrants of the biopsy site. A single sentinel node was identified lateral to the insertion of the latissimus dorsi muscle (that node is not routinely removed during a standard axillary lymph node dissection). The 5 mm node appeared normal macroscopically. After the sentinel node was sampled, an axillary lymphadenectomy was performed to levels I, II, and III. Pathologic examination showed subcapsular microscopic metastatic deposits in the sentinel node (**Figure 2**). Fourteen additional axillary nodes did not have metastatic lesions. The patient was discharged on the first postoperative day. At 15-month follow-up, he was working, free of disease, and had developed no complications from the axillary dissection.

Case 2

A 40-year-old man was found to have a 3.2 mm thick nodular melanoma of the posterior aspect of the left shoulder (Clark's level IV). There was no palpable axillary lymphadenopathy, a chest radiograph showed no metastatic disease, and results of liver function tests were normal. Radiolabeled technetium Tc 99m sulphur colloid was injected subdermally around the biopsy site and lymphoscintigraphy was performed (**Figure 3**). One sentinel node was identified and the skin over that area was marked with the help of the GDP. At the time of the operation, isosulphan blue 1 cc was injected in the four quadrants of the biopsy site. During the procedure, the lymph channels, visible as blue streaks, were traced to the sentinel node, which was sampled. The hand-held GDP was used simultaneously to identify and localize the sentinel node. The tissue counts recorded by the probe were 3000 in the injection site, 1400 in the sentinel node, and 50 to 100 in other axillary nodes. A single sentinel node identified by both methods was located in the posterolateral aspect of the axilla, an area not routinely dissected in a formal dissection.

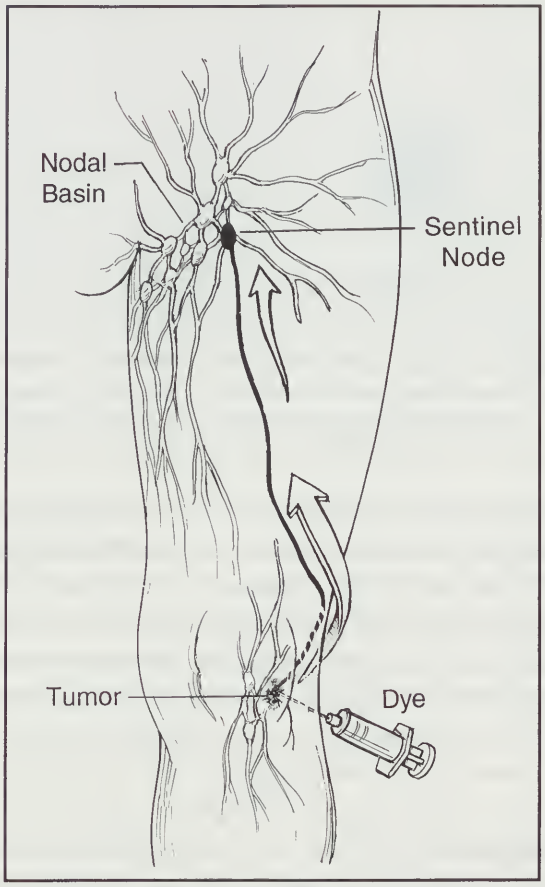


Figure 1. The sentinel node is the first draining node from the primary site and the one most likely to be involved in metastasis.

The sentinel node was macroscopically a normal appearing soft 5 mm node. Excision of the biopsy site with 2 cm margin and left axillary lymph node dissection to levels I, II, and III was performed. The primary site was closed by mobilizing local flaps. Histopathologic examination showed subcapsu-

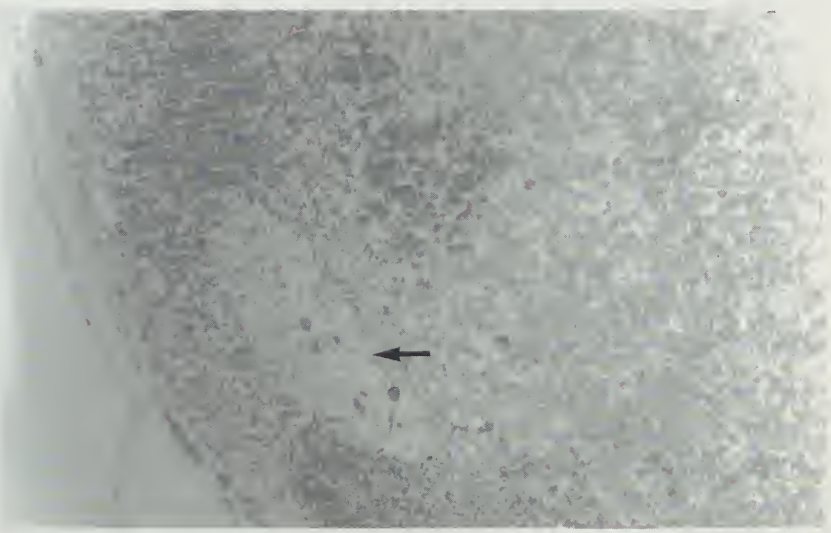


Figure 2. Case 1: Sentinel node biopsy showing subcapsular microscopic metastatatic deposits (arrow) (100X).

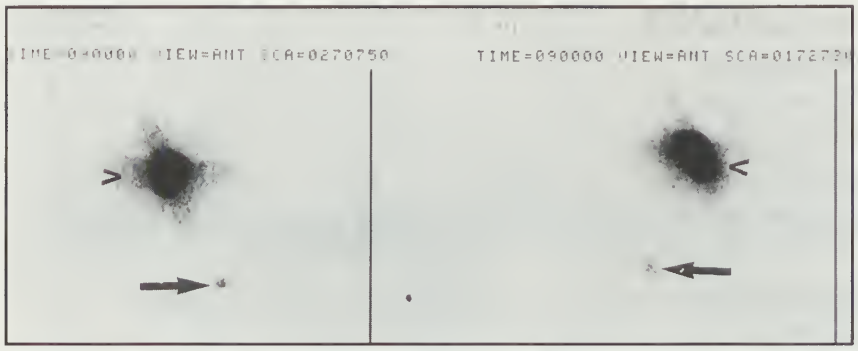


Figure 3. Case 2, lymphoscintigraphy: Posterior and anterior projections obtained 2.5 hours after subdermal injection of 500 μCi of filtered Tc 99m sulfur colloid surrounding the melanoma lesion on the patient's left shoulder (arrowhead). The sentinel node (arrow) in the axilla is clearly visualized.

lar microscopic metastatic deposits in the sentinel node, a finding further confirmed by immunohistochemical staining with S-100 and HMB-45 (**Figure 4**). An additional 22 nodes dissected from the axilla were shown to be free of tumor. The patient was discharged on the first postoperative day. He remained free of disease at 9-month follow-up and developed no complications from the axillary dissection.

Technique

Intraoperative vital blue dye staining. With the patient under general anesthesia, the vital blue dye is injected intradermally in the four quadrants around the lesion or scar before the incision is made. It is important to inject the dye no more than 5 to 10 minutes before making the incision to decrease the possibility of staining multiple nodes and thus missing the sentinel node. The injection is done before the wide excision for two reasons. First, after a wide excision of two or more centimeters, the lymph node drainage pattern is changed and the node excised may not reflect the true sentinel node. Second, by performing the wide excision after the injection, the stained area will be excised, thus decreasing the chance of persistent tattooing (some tattooing may remain around the biopsy site for several weeks).

When an incision is made into the subcutaneous tissue, the blue-stained lymphatic channels and node are easily seen in contrast with the color of the subcutaneous tissue. The sentinel node is harvested and sent for pathologic evaluation. A formal lymph node dissection can be carried out then or done as a second surgery. The procedure is currently performed under local anesthesia. Only patients whose histopathologic results indicate a positive sentinel node will later undergo lymphadenectomy.

Hand-held gamma detecting probe. The Neoprobe 1000 portable radioisotope detector (Neoprobe Corporation, Dublin, OH) is a stainless steel tube (18 cm long by 2 cm in diameter) with an angled tip (120°) for maneuverability (**Figure 5**). Collimation (frequency), which is necessary to identify the sentinel node, can be varied by a movable stainless steel collimator. The tip of the probe contains a highly radiosensitive cadmium tellurite crystal that relays a signal through a preamplifier to emit a digital readout and an auditory signal. The intensity and frequency of the auditory signal are directly related to the level of radioactivity detected.[4-6]

Preoperative lymphoscintigraphy. Sulphur colloid (CIS-US, Inc., Bedford, MA) filtered through a 29 mm diameter membrane filter of 0.1-μM pore size (Millex-VV, Millipore Corp., Bedford, MA) is prepared. Then 500 μCi Tc 99m filtered sulphur colloid is injected subdermally in the four quadrants surrounding the lesion. Sequential images are obtained every five minutes for one hour to identify lymphatics and the sentinel node. Delayed images are obtained as deemed necessary.[7]

Intraoperative gamma detecting probe scanning. After subdermal Tc-99 sulphur colloid is injected, the patient undergoes a nuclear medicine scan and the skin overlying the sentinel node is marked with the assistance of the GDP. The patient is taken to the operating room within 2 to 24 hours. The GDP is placed over the area marked as the

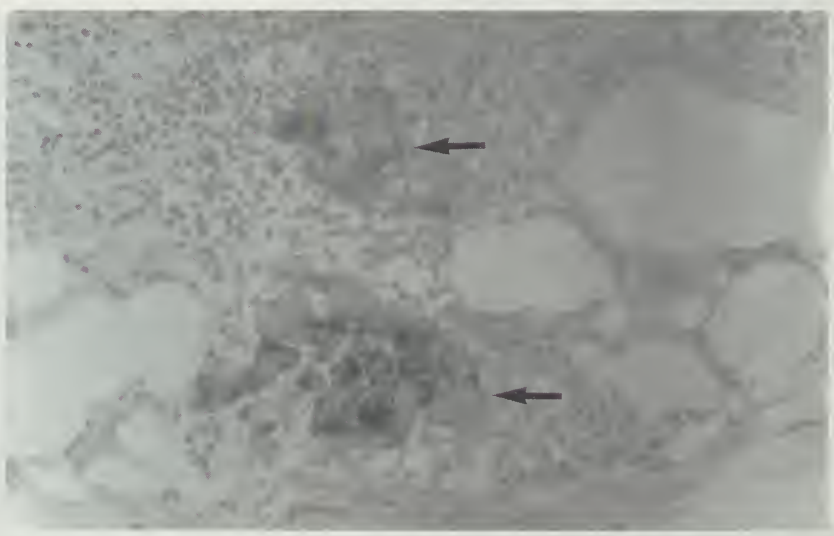


Figure 4. Case 2, immunostaining with antigen S-100. Histopathologic examination showed subcapular microscopic metastatic deposits in the sentinel node (250X).



Figure 5. Neoprobe 1000 portable radioisotope detector.

sentinel node. When the area of peak counts is established, the probe is moved to an adjacent area and held there while an assistant presses the "squelch" button (**Figure 5**). If the emission level is greater than three standard deviations above the squelch levels, a siren sounds, which is used to fine-tune the exact location of the node. The GDP is advanced in an orderly manner from the biopsy site toward the lymph node basin. The areas of increased counts are marked and the appropriate counts recorded. The sentinel node can easily be localized with high radiation emission levels. A small skin incision is made over the sentinel node and it is localized with the assistance of the GDP. The whole area is scanned to identify other sentinel nodes. After the sentinel node is harvested, it is further confirmed by measuring ex-vivo radiation levels, now free of background noise. In one reported series, the mean in-vivo ratio of sentinel node to background radioactivity was 104 (range 1.5 to 2603).[8]

Discussion

Until recently, elective or prophylactic lymph node dissection (ELND) has been a controversial method for managing melanoma. Because metastasis to lymph nodes occurs before systemic spread, removing lymph nodes during the early course of the disease may be curative. Clinical examination, however, is a poor tool to detect metastatic lesions and it has been shown that once nodes become clinically involved, disease is already present systemically in 70% to 80% of patients. Thus, ELND has been advocated for patients who show no clinical evidence of metastasis to the lymph nodes but who have a high risk of subclinical disease.

Several studies have tried to determine which patients would benefit from ELND. In prospective, nonrandomized studies conducted at the University of Alabama and the Sydney Melanoma Unit,[9,10] patients with intermediate thickness lesions (i.e., Breslow 0.75 - 4.0 mm) benefited most from ELND. The low incidence of metastasis in patients with tumors less than 0.75 mm thick (less than 5%) and the high incidence of systemic spread in patients with tumor thickness greater than 4 mm (70% to 80%) negated benefits of ELND. These results were not replicated in two prospective, randomized studies conducted by the World Health Organization and the Mayo Clinic groups. These studies, however, had problems with the design and the number of patients entered.[9] In the recently completed Intergroup melanoma trial,[11] which involved 742 patients with intermediate-thickness melanoma, overall survival was not significantly different when ELND was compared with observation for the entire group of patients.

Lymphadenectomy is associated with significant morbidity, including seromas, lymphoceles, edema, paresthesias, and infections. In one series of 98 radical axillary node dissections in melanoma patients, surgical wound-related complications included infections in 7%, seromas in 27%, nerve dysfunction or pain in 22%, and hemorrhage in 1%.[12] Adequate patient selection will limit morbidity to those who are more likely to benefit from a lymph node dissection.

Cutaneous lymphoscintigraphy, described in 1977,[13] has been found to be useful in localizing draining nodes in the nodal basins. In one reported series, lymphoscintigraphy did not localize a sentinel node in 10% of the patients.[14] Other investigators have reported similar results using both the vital blue dye technique and the GDP (**Table 1**).[2,5,14-16]

It has been shown that sentinel node sampling effectively detects micrometastatic lesions in lymph nodes and has a very low false negative rate.[2,16] Metastatic lesions in sentinel nodes were found in 12% to 18% of patients. Nonsentinel node metastatic lesions without involvement of the sentinel node were seen in less than 1.5% of patients. Although it is a very effective method of detecting the sentinel node, the blue dye technique has a much lower yield (81%) than GDP (98% to 99%).[14,15] Using the dye technique, the surgeon does not know the exact location and depth of the sentinel node and sometimes large flaps are required, especially in obese patients. By

Table 1. Results of studies of patients with melanoma who underwent biopsy of sentinel nodes

Author	Year	No. of Patients/ Lymph Basins	Sentinel Node Harvested	Detection Method	Metastasis in Sentinel Node	Nonsentinel Node Metastasis
Morton et al[2]	1992	237	81%	VB	18%	0.06%
Kapteijn et al[8]	1995	54	99%	GDP	14%	1.0%
Krag et al[14]	1995	121	98%	both	12%	-----
Albertini et al[15]	1995	129	96%	both	15%	-----
Miliotes et al[16]	1996	132	100%	VB	17%	1.5%

VB = vital blue dye
GDP = gamma detecting probe

contrast, the GDP can localize the node within 1 cm and can be done under local anesthesia, thus minimizing the extent of surgery.[14] Krag and associates[14] reported that in a group of 44 patients who underwent a combination of blue dye technique and GDP, the sentinal node was not detected by blue dye in four patients but was easily picked up by GDP. A combination of the two techniques has been shown to be better than either alone.[15]

Primary melanomas can have multiple lymphatic drainage basins and prophylactic lymphadenectomy is associated with increased risk of morbidity if done for more than one basin.[14,17] GDP can accurately stage these multiple basins. The GDP technique also can be learned more quickly than the vital blue dye technique, which takes longer to master.[14] The sentinel node can be harvested using these techniques in 81% to 100% of cases; most studies show a success rate greater than 96% (**Table 1**). In the two cases presented, the sentinel node was the only node involved. In both patients, the sentinel node was in an area where a standard axillary node dissection would have missed it.

Lymphatic mapping techniques have stimulated a change toward more conservative resection in patients with melanoma. Such an approach promises to give equal staging information without the increased risk of morbidity associated with more radical surgeries in patients without metastatic disease. It also allows patients with negative nodes to return to normal activity earlier.

Collaboration among the departments of surgery, nuclear medicine, and pathology is important. Multiple studies will frequently be needed to identify disease in the sentinel node. Immunohistochemical analysis with different antigens (i.e., S-100 and HMB-45) may be needed to identify accurately metastatic disease, which, as in the cases presented, may only be microscopic.

We now routinely perform sentinel node sampling in patients who have clinically negative axilla and melanoma more than 0.76 mm thick. The sampling is done under local anesthesia as an outpatient procedure. Only patients who have a positive sentinel node will have a lymphadenectomy performed at a later date.

Although early removal of micrometastatic lesions in all draining nodal basins should improve survival, that hypothesis is yet unproven. Finding a positive node makes the patient eligible to receive adjuvant therapy with interferon Alfa-2b. It has been recently shown that melanoma patients with completely resected positive lymph nodes who are treated with interferon Alfa-2b will have longer disease-free and overall survival.[18] In that study, median disease-free survival increased from 1 to 1.7 years and overall survival from 2.8 to 3.8 years. Compared to observation, the overall 5-year survival improved from 37% to 46%. Interferon Alfa-2b is the first drug associated with significant benefit in high-risk melanoma patients.[18] Patients who improved with this therapy had positive lymph nodes. Those whose melanomas were more than 4 mm thick but who did not have positive nodes did not show statistically significant improvement in disease-free or overall survival.

The techniques for identifying positive sentinel nodes and the ability to perform sentinel node excision promises to change the management of melanoma by providing accurate pathologic and staging information in a cost-effective manner while minimizing the morbidity of a routinely performed lymphadenectomy.

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NATIONAL TRAUMA SYMPOSIUM CALL FOR ABSTRACTS

The R Adams Cowley Shock Trauma Center and the University of Maryland School of Medicine will present the *R Adams Cowley 17th National Trauma Symposium* November 7-9, 1996, at the Hyatt Regency Hotel in Baltimore. The deadline for abstracts is August 1, 1996. For information and to obtain an abstract form, contact:

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An unexpected clue: the peripheral blood smear in a patient with AIDS

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From Harbor Hospital Center in Baltimore, where Dr. Lacson is chief resident, Dr. Al-Makki is a senior resident, Dr. Caplan is chief of infectious diseases, and Dr. Zigel is a senior attending physician.

The acquired immunodeficiency syndrome (AIDS) epidemic has led to a burgeoning number of opportunistic infections that are often challenging for the clinician to diagnose and treat. We describe a patient who presented with such a diagnostic challenge. An inexpensive, routine blood test ultimately led us to the diagnosis.

Case report

A 36-year-old man presented with fever, chills, progressive lethargy, anorexia, night sweats, and cough with occasional hemoptysis. He was a known intravenous drug user who had had AIDS for two years. His CD4 cell count was zero. He had no history of travel in known histoplasma-endemic areas. He had no prior history of pulmonary tuberculosis or *Pneumocystis carinii* pneumonia. He had lost approximately 20 pounds during the past six months and was taking dideoxyinosine and oxycodone with acetaminophen.

The temperature was 40.0°C, the pulse was 108, and the respirations were 24. The blood pressure was 103/68 mm Hg. On physical examination the patient had oral thrush and a macular rash on the neck, face, and scalp. The heart was normal, the lungs were clear, and there was no hepatosplenomegaly. There was pitting edema and the patient complained of paresthesias of both feet.

Laboratory results showed pancytopenia. The white-cell count was 400/mm^3; hematocrit, 24%; mean corpuscular volume, 87fL; lymphocyte count, 20.9%; and platelet count, 44 000/mm^3. A radiograph of the chest showed a small calcified granuloma at the left base. The purified protein derivative of tuberculin, as well as complement fixation titers for *Toxoplasma gondii*, *Histoplasma capsulatum*, and *Cryptococcus* were negative. One of two sets of blood cultures showed coagulase-negative *Staphylococcus aureus*, but the patient did not improve despite being given antibiotic therapy.

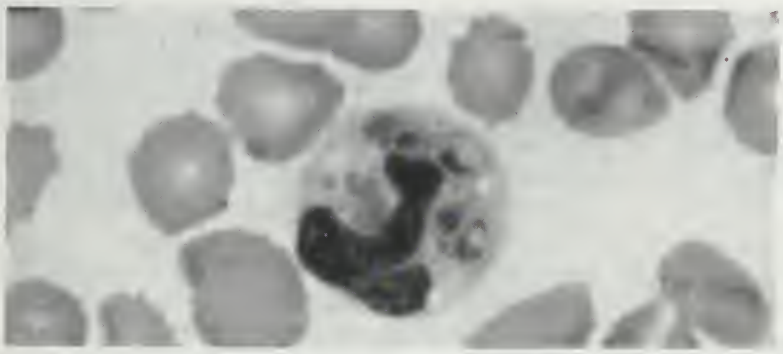


Figure 1. Stain showing the round densities with pseudocapsulation compatible with *Histoplasma capsulatum.*

Two days after the patient was admitted, organisms were noted within the white blood cells on the peripheral smear and identified as *H. capsulatum* (**Figure 1**). The organisms were 2 to 5 μ in diameter, with characteristic pseudocapsulation formed by retraction of the protoplasm with staining.[1] This was later confirmed with a methenamine-silver stain, which also showed budding yeast forms (**Figure 2**).

Treatment with amphotericin-B was started. Blood cultures grew *H. capsulatum* by the fourth week of therapy. With early and appropriate treatment, the patient was discharged from the hospital taking oral itraconazole after taking amphotericin for a total of six weeks.

Discussion

AIDS has devastating consequences because patients are susceptible to a wide variety of opportunistic infections. *Cryptococcus neoformans* and *Candida albicans* are the most commonly occurring fungal diseases in patients with AIDS.[2] There has been an increasing number of reports of histoplasmosis,[3-5] especially in endemic and surrounding areas.[5-8] Some reports indicate an incidence approaching that of cryptococcal infections.[9]



Figure 2. Metheramine-silver staining showing budding of the organism (arrow) that confirmed the diagnosis.

Disseminated histoplasmosis has a rapid course and fatal outcome if it is not recognized and treated promptly.[3-6] There have been case reports of histoplasmosis in Baltimore[10] and there are pockets in Maryland of high histoplasmin skin test positivity indicating exposure.[11]

Many tests have been described to diagnosis histoplasmosis. Almost all body fluids and tissues have been sampled for smears and culture, including blood, bone marrow, pleural fluid, peritoneal fluid, cerebrospinal fluid, bronchial washings, and sputum.[12,13] Invasive procedures are needed to obtain most of these samples,[14-16] and in some cases it is difficult to obtain informed consent. The main disadvantage in awaiting culture results is the time needed for organisms to grow, which is usually 18 to 34 days.[13]

Several serologic tests (e.g.,complement fixation titers) have been used, but their sensitivity is hampered by cross reaction with other fungal species. As occurred in our patient, false negatives have been noted in as many as one third of cases and have been observed more frequently in patients with immunologic dysfunction.[9] A polysaccharide antigen test appears to be the most accurate and provides results in 24 to 48 hours,[14-15] but it is not yet commercially available. The bone marrow smear and culture provides the best sensitivity: 40% to 80% in several studies.[12-14,16,17] The reported sensitivity of the peripheral smear ranges from 8% to 46%.[12,13,18-20] A buffy coat smear has been reported to increase the yield.[13] These tests are highly specific, as identification of the organism provides the diagnosis, and they can be done as soon as the disease is suspected. The current case included an aggressive, $800 work-up for sepsis, yet a $15 test was diagnostic.

We conclude that the peripheral blood smear or buffy coat smear may provide a rapid diagnosis from an easily obtainable specimen using a minimally invasive procedure. It is readily available and inexpensive, which is an advantage in the current era of cost containment.

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AIDS INFORMATION

Moore News for Care Providers, a free publication of the Mid-Atlantic AIDS Education and Training Center, includes treatment updates, information on FDA activity, demographic data, literature capsules, data on regional studies, and other pertinent information. To be placed on the mailing list, write to Matthew T. Williams, Johns Hopkins University AIDS Service, 600 N. Wolfe St., Carnegie 292, Baltimore, MD 21287-6220.

The National HIV Telephone Consultation Service (800-933-3413), a toll-free "warmline" based at San Francisco General Hospital, is available to physicians and other health care providers who have HIV-related clinical management questions. Calls are answered by a team of HIV experts consisting of physicians, nurse practitioners, and clinical pharmacists. Consultants are on duty between 10:30 a.m. and 8:00 p.m. EST. Calls received at other times are recorded and returned as soon as possible. The consultation service is funded through the Health Resources and Service Administration, AIDS Education and Training Centers, and the American Academy of Family Physicians.

MARYLAND MEDICAL HISTORY

Peregrine Wroth, M.D., and cynanche tonsillaris



In December 1805, Peregrine Wroth, destined to become one of the more renowned Maryland physicians of the nineteenth century, was a candidate for membership in the Philadelphia Medical Society. One of the prerequisites for election was the presentation of a thesis on a medical topic.[1] Wroth chose to discuss cynanche tonsillaris and its treatment with bleeding and deliquium animi. His thesis was accepted and he was elected to membership while still a student.

Contemporary physicians may wonder about the strange name of the disease and the more than unusual treatment then advocated. Greek in origin, *cynanche* refers to the strangulation of a dog as by a collar (throttling). Because severe inflammation and swelling frequently appear in the throats of dogs and wolves, the transition in usage from choking by a collar to that produced by quinsy in these animals and humans was easily made.

Bleeding was a frequently used modality dating back to the time of Hippocrates.[2-4] Physicians agreed that drawing blood from the immediate area of the inflammation relieved congestion and restored the normal caliber of the capillaries. Removal of several ounces of blood was thought to improve its quality by the elimination of deleterious components, thus reducing fever. Small bleedings were considered ineffectual and therefore the bleeders were radical in their approach. During the Middle Ages, the operations of the barber surgeons were not confined to tonsorial enhancement, but included the dressing of wounds, bloodletting, and other minor surgical procedures. By that time, the removal of blood had become a principal remedy for the entire realm of fevers. Dr. Benjamin Rush was a great proponent of bleeding, so it was natural that Wroth, a student in Philadelphia during that period, should learn and adopt the treatment.

The final illness of George Washington is an excellent example of the use and misuse of bleeding. The physicians called his disease cynanche trachealis, which in the post-colonial days referred to inflammation of the glottis, larynx, or upper part of the trachea. Four separate bleedings with the removal of about 80 ounces (3400 cc) surely contributed to Washington's death.

The other part of Wroth's prescription was deliquium animi, which is a solution of gum. Animi gummi may be oriental or occidental in origin. It was used extensively during the

Middle Ages[5-7] and a report from 1693 extols its virtues.[3] Some beneficial effects must have been observed from its administration because its use persisted until Wroth's time.

Known also as gum copal, animi gummi is white or whitish yellow and melts easily in water. It was found useful against "all Cold Diseases of the Head and Nerves, Pains, Aches, Catarrhs, Wind, Vapors, Colicks, Palsies, Cramps, Convulsions, Gouts, Rheumatisms, and the like."[3] The compound was used as an oil, tincture, balsam, varnish, or mixture.

The advent of improved surgical methods and the antibiotics completely changed the treatment of cynanche tonsillaris. Incision and drainage of the abscess is definitely indicated. If there is doubt about the adequacy of the airway, a preliminary tracheostomy should be done under local anesthesia. The operation for drainage is best done in a Trendelenburg position to mitigate the chance of pulmonary aspiration of the pus. Had this therapy been available during Washington's time, he might have been given a few more years of life.

JOSEPH M. MILLER, M.D.
Dr. Miller is a retired surgeon in Timonium, Maryland.

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CIVIL WAR MEDICINE CONFERENCE

From Friday, August 2 through Sunday, August 4, Hood College in Frederick will be the site of the fourth Annual Civil War Medicine Conference. Historian James McPherson, the Pulitzer Prize-winning author of *Battle Cry of Freedom*, will deliver the keynote address. Other conference highlights include lectures by various experts on Civil War medicine, a tour of Civil War Washington, DC, and a visit to the National Museum of Health and Medicine at Walter Reed Army Hospital. The weekend will conclude with a reception at the National Museum of Civil War Medicine in Frederick. For registration information, call 301-695-1864.

Books, Etc.

The Gene Wars. Science, Politics, and The Human Genome.
Robert Cook-Deegan, M.D. New York, NY: W.W. Norton; 1995. 416 pages.
$14.95 (paper).

This extensive and interesting history of the Human Genome Project is a worthwhile addition to the literature. It carefully and fully traces the natural outgrowth of the project, the author having been a close observer much of the time while working as a consultant to the National Institutes of Health, as acting director of a bioethical committee, as acting executive director of a biomedical ethics advisory committee, and on "the Hill."

Cook-Deegan points out that the genome project really owes its beginnings to Gregory Mendel's first writings on "hereditary 'elements'" in 1865 and to James D. Watson's and Francis Crick's description in 1953 of the double helix structure of DNA. The author guides the reader through all phases of the project by dividing his book into five sections: The Scientific Foundation; Origins of the Genome Project; The Support Structure; Genome Gone Global; and Ethical, Legal and Social Issues. He carefully describes the influence of personalities, government, economics, and politics on the direction and pace of the program.

He notes the contributions of innumerable workers, as well as the various organizations they founded and the rivalries of some for recognition and/or monetary gain, which extended to very high levels in some cases. During a period of less than two decades, the progress in methodology, thinking, and international cooperation has been phenomenal, despite numerous instances of heated differences and difficulties at times with funding. The increasing interest and activity is illustrated by the fact that although there were only three scientific papers on the subject in 1985, the number increased to 850 by 1988, and by 1992, papers appeared at the rate of 500 per month.

The activity continues in genetic mapping, sequencing the entire human genome, with improved techniques and attempts to increase understanding of the functions of the genes. Cook-Deegan points out that the genome project has been an expeditious way to improve research in almost all diseases. This work is largely an attempt to understand and then control the major causes of illness, disability, and death, which have changed from the acute conditions of former times to the chronic ones of this era. To illustrate the considerable distance yet to be traversed, however, the author notes that Dr. Victor McKusick at Hopkins (whom he rightfully calls the dean of human genetics) began keeping track of genetic disorders and variants in 1960, updated his records approximately every 2 years, and by 1990 had catalogued 37,987 references by 54,623 authors. Yet he had covered probably less than 10% of all the structural human genes.

Cook-Deegan notes that the health care industry and the research associated with it are becoming an increasingly large part of the national economy and that the genome project is thus turning out to be a large factor in creating jobs and wealth. He also notes that scientists, lawyers, politicians, and

ethicists recognize that third parties may use genetic information adversely. Although that remains a vexing problem, Cook-Deegan is optimistic that the statement "it's genetic" will no longer mean we can do nothing about it.

This book is a must for every library devoted to scientific endeavors, as well as for the personal collections of all with more than a passing interest in genetics. During its preparation, the author personally interviewed more than 300 authorities, many of them Nobel laureates, and consulted more than 1,400 references, which occupy 37 pages of small print. The value of the book in the medical literature was best described by Dr. McKusick, who called it "probably the most authoritative account of the genesis and early stages of the Human Genome Project."

For the average physician with limited time for reading and the further distraction of many journals, this book is unfortunately *too* complete and includes too much minutiae unless the physician has a greater than average interest in the subject. Yet the genome project should be of such near future importance to all physicians that I hope the author will publish a briefer volume limited to the more important events discussed in this book.

Marion Friedman, M.D.
Baltimore, Maryland ■

Clinical guideline to help smokers quit

The newest clinical practice guideline from the Agency for Health Care Policy and Research targets patients who smoke and urges clinicians to approach smoking as a chronic condition that is difficult, but not impossible, to treat. The full guideline, *Smoking Cessation: Clinical Practice Guideline*, may be purchased from the U.S. Government Printing Office (202-512-1800). Free guideline publications include *Smoking Cessation: Quick Reference Guide for Primary Care Clinicians; Smoking Cessation: Quick Reference Guide for Smoking Cessation Specialists;* and *You Can Quit Smoking: Guide for Consumers.*

The free guidelines are available 24 hours a day, 7 days a week, through AHCPR InstantFax, 301-594-2800. To order by mail, call 800-358-9295 or write to Smoking Cessation, AHCPR Publications Clearinghouse, P.O. Box 8547, Silver Spring, MD 20907-8547. Order electronically at http://www.ahcpr.gov/. The full guideline, quick reference, and consumer guides, and articles used in the guideline meta-analyses are available on the Internet through the AHCPR home page. Using a Web browser, specify URL http://www.ahcpr.gov/guide/ and click on "Clinical Practice Guidelines Online."

To Our Readers

The Editorial Board of the *Maryland Medical Journal* invites you to submit reviews of books, videos, and films of interest to the medical profession. Bringing your evaluation and analysis to the attention of your colleagues will be informative and stimulating. Send your report to: Chris Papadopoulos, M.D., Review Editor, *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201.

Changes in the 1996 application for medical license renewal

Department of Health and Mental Hygiene
Martin P. Wasserman, M.D., J.D., Secretary
Board of Physician Quality Assurance
J. Michael Compton, Executive Director
Maryland Health Care Access and Cost Commission
John Colmers, Executive Director
Maryland Health Resources Planning Commission
James R. Stanton, Executive Director

In an ongoing effort to improve access to quality and cost-effective medical care for Maryland residents, the Department of Health and Mental Hygiene (DHMH) began in 1995 to collect medical practice information on all physicians licensed in Maryland. The physician practice information data collected in 1995 is currently being processed. Of the 10,460 practitioners sent a renewal packet, 8,950 renewed their Maryland license. The optimal timeline for the availability of this information is mid-1996.

Collection of the necessary data will continue though the 1996 medical license renewal period. Similar to last year, the licensing packet that will be mailed this July comprises three sections: the License Renewal Form, Parts A and B; the Supplemental Renewal Form; and the Health Care Provider Data Sheet. Every data element on these forms has been reviewed by the Board of Physician Quality Assurance (BPQA) to ensure that only necessary information is requested.

The data elements and utilization of collected data

There is an ongoing cooperative relationship among the BPQA, the Health Resources Planning Commission (HRPC), and the Health Care Access and Cost Commission (HCACC) for the purpose of improving the ability to ascertain the supply and distribution of physicians and other health professionals in Maryland. The data from this ongoing effort will be used for a wide variety of public health projects designed to benefit the citizens of Maryland. Individual practitioners can also benefit from these data. The data elements and examples of how this collected information will be used to meet federal and state statutory responsibilities are presented in **Table 1**. (More information on this statewide project is available by referring to the June 1995 issue of the *Maryland Medical Journal* or by contacting the Maryland Health Resources Planning Commission.) Legal counsel from the three agencies met throughout 1995 to draft clear guidelines regarding the release of the data collected to insure both appropriate confidentiality and compliance with the Public Information Act. Public access to nonconfidential data elements is permitted under Maryland law. However, release of data legally deemed confidential will occur only in aggregate form. The data are not intended to restrict or regulate the training, location, reimbursement, or medical practice patterns of any individual physician.

1996 Changes

Minor changes have been made to the Part B and Supplemental Renewal forms to improve the flow of questions; add a second role code for each practice location; and add instructions, response options, and space to clarify responses. More options have also been added to the code sheet that accompanies these forms. All of these changes are in response to feedback from physicians surveyed during the 1995 cycle. Two questions pertaining to care rendered to low-income and uninsured populations needed for poverty-population shortage-area designations have also been added. Finally, contact information is provided to expedite answers to questions.

The 1991-1992 data

Before this new data collection process began, the HRPC administered a voluntary survey that identified physician practice locations in 1991 to 1992. A preliminary analysis of these data revealed that the overall response rate was 69%. Physicians who did not renew their license or do not have a Maryland mailing address (and may not practice in Maryland) represented the highest proportion of nonrespondents. The responses were compiled in an electronic database that contains practice information on 85% of surveyed physicians who maintained an active license as of January 10, 1996. Furthermore, the data set contains 1995 licensure information and 1991-1992 practice information on 14,507

Table 1 Purposes, Data Elements, and Legal References

Purposes	*Data Elements on Renewal Forms*	*Legal References*
To obtain data BPQA is required by law to collect To catalog the current inventory and availability of active practitioners by specialty in order to geographically map, at the street address level, the distribution of all service sites including those outside the State	• office/practice locations • jurisdiction • at each site, average number of hours per week available for patient care • area of concentration • total number of locations • if all offices located outside Maryland, treat Maryland residents	Health Occupations Article, §14-316(d), and Health-General Article, §19-101 et seq., Annotated Code of Maryland
To propose areas for designation as federal Health Professional Shortage Areas (HPSAs) for selected specialties based on geographic or special population (poverty population) criteria which can lead to the placement of National Health Service Corp Physicians To assist with Medically Underserved Area (MUA) primary care designations, necessary for establishing Federally-Qualified Community Health Centers that treat many uninsured and Medicaid-eligible Marylanders To collect general demographic information that can be used to address specific issues with respect to physician shortages and access to care To identify critical areas where the loss of a full or part time physician could restrict access to treatment	• office/practice locations • Medicaid Provider Numbers • currently retired • year of birth • at each site, average number of hours per week available for patient care • area of concentration • accepting new Medicaid patients • offering care to uninsured patients • ending practice in next 2 years • race •gender	Section 332 of the Public Health Service Act Section 330(b)(6) of the Public Health Service Act Health Occupations Article, §14-207b, Education Article, §18-804.1, and Health-General Article, §19-101 et seq., Annotated Code of Maryland
To identify specialty physician shortages whose scarcity can jeopardize the availability of needed health services To analyze where and when current practitioners were trained in order to distribute State and federal funds from both the Loan Assistance Repayment Program, which aids new practitioners in repaying educational loans, and the Health Manpower Shortage Incentive Grant Program, which provides funds to higher education institutions training these scarce professionals	• office/ practice locations • medical school of graduation • Medicaid Provider Numbers • year of graduation • gender • at each site, average number of hours per week available for patient care • area of concentration • medical school location • accepting new Medicaid patients • year of birth • race	Health Occupations Article, §14-207b, Education Articles, §18-804.1 and §18-16.02, and Health-General Article, §19-101 et seq. , Annotated Code of Maryland
To identify existing and emerging trends with regard to practice and to ascertain the current utilization of mid-level providers	• practice setting • role • area of concentration • practice type • private/public affiliation • physician assistant, nurse practitioner, or nurse midwife part of practice	Health Occupations Article, §14-207b, Education Article, §18-804.1, and Health-General Article, §19-101 et seq., Annotated Code of Maryland
To link health care claim encounter data with the physician and practice providing the services in order to report service utilization and costs by geographic region and health care specialty to the General Assembly. †	• organization name • office/practice locations • office telephone number • jurisdiction • area of concentration • practice setting • practice type • role • private/public affiliation • Medicare UPIN • Medicaid Provider Numbers • Tax Identification Number	Health Occupations Article, §1-210, Health-General Article, §19-1507(f), and §19-1509(e), Annotated Code of Maryland
To facilitate the investigation of complaints against licensed physicians	• Drug Enforcement Agency Number • Maryland Controlled Dangerous Substance Number • states other than Maryland in which an active medical license is held	Health Occupations Article, §14-401, Annotated Code of Maryland

†Medicare and Medicaid Provider Numbers are required until assignment of a National Provider Identifier. Currently, the U.S. Health Care Financing Administration has tentative plans for state licensing boards to assign this identifier.

(72%) of all physicians licensed in Maryland as of October 10, 1995. Some of these physicians on whom practice location data are unavailable may not be practicing in Maryland. This figure, therefore, is the *minimum* estimate of the number of physicians practicing in Maryland for whom practice data are available (but not allowing for any changes in, for example, practice location or specialty).[1] Physicians interested in obtaining this data set or obtaining information from the collected data may contact the HRPC.

Conclusion

Maryland's licensed physicians represent the backbone of this state's reputation for quality health care and innovative health policy. Now, as the twenty-first century draws near, maintaining this position as a leader in the delivery of health services may well hinge on the state's ability to collect, disseminate, and utilize accurate and complete data. Thus, physicians are asked to participate in a new era of cooperation, one in which the DHMH can be viewed as a greater source of health information and a stronger partner in the statewide provision of accessible, quality, and cost-effective medical care.

Prepared by Kelly Heilman, MBA, Division of Health Systems Planning, Maryland Health Resources Planning Commission

Acknowledgement

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[1] The proportion of all currently-active physicians licensed in Maryland for whom practice information is available can be calculated by adding together the respondents who have an active license (14,507), the non-respondents who still have an active license (2,521), and the physicians licensed after the survey who still have an active license (3,173). These three groups together amount to 20,201 physicians. ■

Requests for additional information can be addressed to Kelly Heilman, Maryland Health Resources Planning Commission, 4201 Patterson Avenue, Baltimore, MD 21215. Telephone 410-764-3255; FAX 410-764-5996.

About The Cover Photographer

I am an internist in the Towson area. The practice of medicine has always been foremost, but nature and wildlife are philosophically important to me—an outlook that was probably engendered in part by my early life on a farm and later years in the Boy Scouts earning merit badges in forestry, camping, and bird watching.

In the past few years, nature photography has supplied me with another way to see our environment. Making good pictures requires looking more attentively at our natural world and allows a means to capture fauna and flora for later enjoyment. Some use canvas as a means to do this. I use film.

My goal now is to master the mechanics of photography so as to spend time on what is emotionally satisfying. Being self-taught is a somewhat slow, often frustrating process. The Med Chi photo contest was the first I've entered and I am therefore pleased that my photo of the sunflower was chosen to grace the cover of this month's MMJ.

Maryland is a beautiful state with many photographic opportunities. Spring wildflowers opening their petals to early morning sun, colorful reflections in mountain streams, vivid hues of autumn leaves, migration of a gaggle of Canada geese. With my tripod in tow and Carol as my constant companion (wearing her Kodak medium tone jeans), I intend to make many more photographs of Maryland's natural bounties.

Anderson M. Renick, Jr., M.D.



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Alliance

The Charles Ballard Senior Center

The Medical Society Alliance of Anne Arundel County founded the Charles Ballard Senior Center in 1982. The Center provides health education and guidance, with a focus on preventive medicine, to seniors aged 55 and over. The programs include aerobic exercise, blood pressure screening, guest speakers, and seminars.

In October 1995, the Alliance focused on National Breast Cancer Awareness month by planning a program emphasizing breast self-examination and mammography screening. The program was open not only to the seniors at the Center, but also to the general public. The schedule included speakers who addressed various topics dealing with the prevention and detection of breast cancer. The attendees had an opportunity to learn the techniques of self-examination using the breast model provided by the state Alliance. They visited a local mammography screening facility where they learned the importance of regular mammography as recommended by the American Cancer Society.

A presentation was made on "Look Good, Feel Better," a national program directed to cancer patients undergoing chemotherapy or radiation therapy. This program addresses the overwhelming cosmetic changes that occur during treatment. The speaker discussed skills for coping with these problems and improving appearance.

Other topics discussed during the month included cervical cancer, urinary incontinence, and prostate disease. The goal of our cancer awareness series was to educate the public on the importance of preventive medicine.

Laurie Buhrer and Frances O'Brien
Medical Society Alliance of Anne Arundel County ■



Members of Charles Ballard Senior Center examine the breast model used to help women learn effective self-examination.



In Memoriam

Joseph F. Chambers, M.D., a Montgomery County psychiatrist who specialized in the treatment of drug addiction and alcoholism, died of bone cancer March 19, 1996, at Sibley Memorial Hospital. A Washington, DC, native, Dr. Chambers earned his undergraduate and medical degrees at Georgetown University. After serving in the Army during World War II, he interned at Providence Hospital and completed a psychiatric residency at George Washington University Medical Center. He served as a medical officer in the alcohol and drug addiction service at D.C. General Hospital, was chief psychiatrist at the Adams Mill Alcoholism Center in Washington, and was medical director of Seneca Rehabilitation Center in Montgomery County. He also served as a consultant to state and federal agencies such as the Nuclear Regulatory Commission, Food and Drug Administration, and Federal Aviation Administration. Dr. Chambers was 69.

William G. Hall, M.D., a Rockville family practitioner who lived in Potomac, died of cancer February 21, 1996, at Shady Grove Adventist Hospital. Dr. Hall, a native of Pittsburgh, Pennsylvania, was a Navy frogman during World War II. After the war, he completed his undergraduate studies at Ohio Wesleyan University, earned his medical degree at Northwestern University, and served his internship at West Penn Hospital in Pittsburgh. Dr. Hall retired from the practice of medicine in 1985, but remained active in the Montgomery Hospice, Meals on Wheels, and the Friendly Visitors program. He also served as president of the Rockville Nursing Home Board of Governors for 25 years. Dr. Hall was 72.

John M. Haws, M.D., died of heart failure at his home in Austin, Texas, March 4, 1996. Chief of obstetrics and gynecology at The Union Memorial Hospital in Baltimore for more than 30 years, Dr. Haws was born in Birdsboro, Pennsylvania. He earned his medical degree at The Johns Hopkins University School of Medicine in 1930 and was a resident in obstetrics and gynecology at Hopkins, Union Memorial, and the old Hospital for the Women of Maryland. He retired from the practice of medicine in 1985. Dr. Haws was 91.

Edward Kowalewski, M.D., chairperson of the family medicine program and department at the University of Maryland School of Medicine, died of heart failure at Anne Arundel County Medical Center on April 9, 1996. Dr. Kowalewski graduated from the George Washington University School of Medicine in 1945 and completed an internship at George Washington University Hospital the next year. He became an Army Air Force flight surgeon working at the Valley Forge General Hospital in Pennsylvania, following which he practiced general and family medicine. In 1972, he became professor and chairperson of the University of Maryland's family medicine department. Before his retirement in 1990, he instituted the first educational program in geriatric medicine, was chief of staff at University Hospital, was president of the medical staff at the Deaton Hospital, and was instrumental in starting a statewide physician's rehabilitation program. An active member of Med Chi, Dr. Kowalewski was chairperson of the Committee on Focused Professional Education from 1991 to 1994. He was 75.

Stephen K. Padussis, M.D., a general surgeon and former president of the medical staff at St. Agnes Hospital in Baltimore, died of pancreatic cancer April 28, 1996, at his home in Lutherville. A 1948 graduate of the University of Maryland School of Medicine, Dr. Padussis completed his internship and surgical residency at St. Agnes. He served in Korea with the 43rd Mobile Army Surgical Hospital from 1954 to 1956 and was discharged a captain. Named president of the St. Agnes medical staff in 1971, he was also associated with Church and Bon Secours hospitals, as well as South Baltimore Medical Center. Although he was semi-retired, Dr. Padussis continued to see patients until the time of his death. In addition to being a 40-year member of Med Chi, he was a member of the American Medical Association, American Geriatrics Society, and American College of Abdominal Surgeons. He was 72.

David N. Robb, M.D., a family physician who practiced in Camp Springs, Fort Washington, Landover, and Bowie, died February 2, 1996, in a car accident in Pennsylvania. Dr. Robb, who lived in Nokesville, Virginia, earned his undergraduate degree at The University of Chicago and his medical degree at the George Washington University School of Medicine. During the 1950s, he served in the Army and later was a medical officer in the Air Force. In addition to his regular practice, Dr. Robb did weekend emergency room coverage in Hazleton, Pennsylvania, and in Martinsburg, West Virginia. He also had practiced in hospital emergency rooms in Baltimore and Patuxent Naval Air Station and at D.C. General Hospital. Dr. Robb was a member of the Quality Assurance Committee at Southern Maryland Hospital Center in Clinton, as well as the Research and Bylaws committees at Greater Southeast Community Hospital in Washington, DC. A member of the Prince George's County Medical Society, he also belonged to the American Medical Association and American Academy of Family Practice. Dr. Robb was 66.

Sandra M. Walden, M.D., a pulmonary diseases specialist who was the founding director of the Adult Cystic Fibrosis Clinic at The Johns Hopkins Hospital, died April 26, 1996, of lung cancer. Dr. Walden, a nonsmoker, was diagnosed in 1994, but continued working until January 1995. A 1979 graduate of Emory University School of Medicine, she completed her internship at Baltimore City Hospitals (now Johns Hopkins Bayview Medical Center) and joined the Hopkins faculty in 1985. Her cystic fibrosis clinic was developed to serve patients who, with improvements in medical care, have survived to adulthood. Dr. Walden was 42.

No additional information was available at press time for the following members:

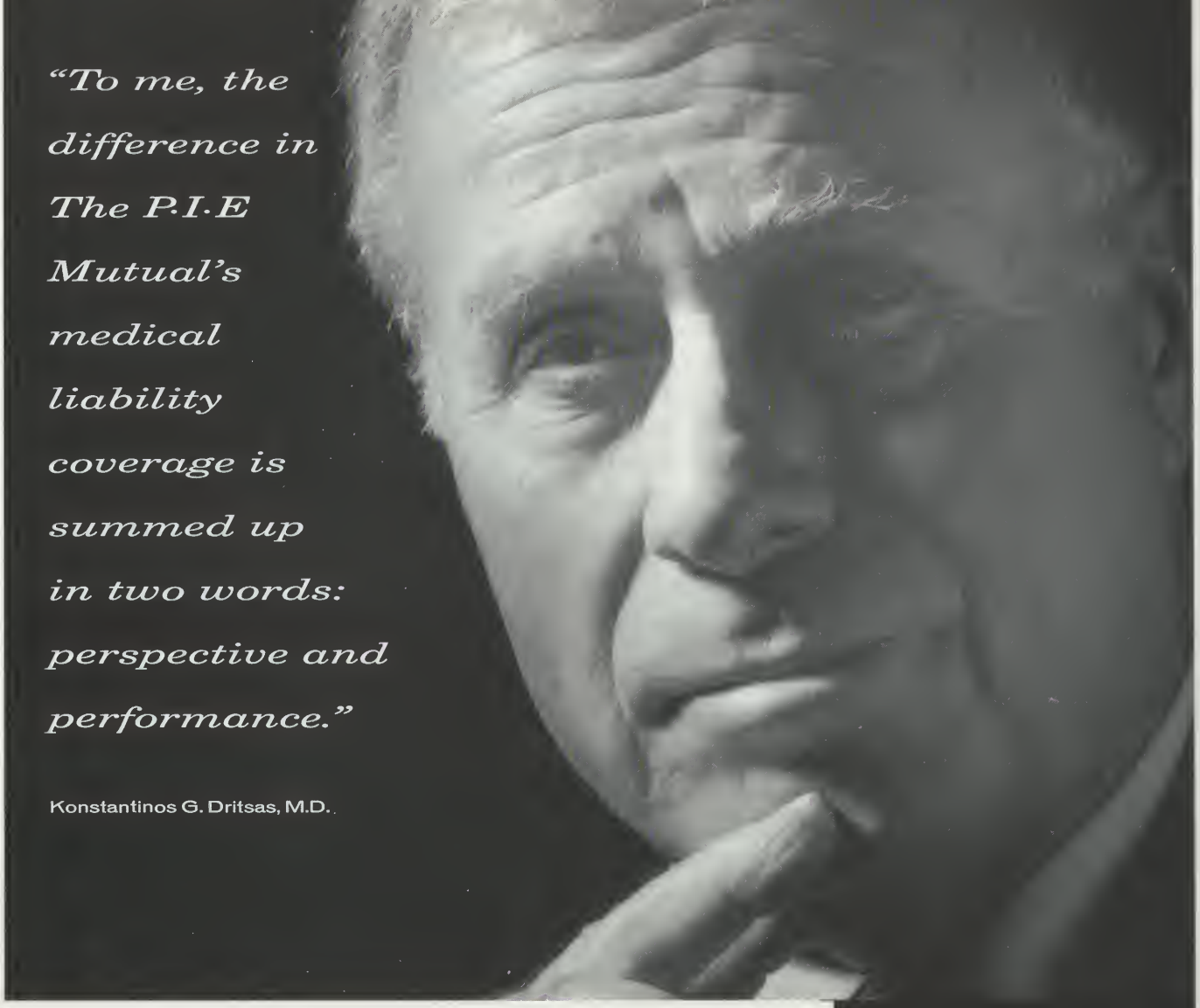
Leonard T. Peterson, M.D.
Montgomery County..... December 1995

Robert A. Riley, M.D.
Anne Arundel County..... November 15, 1995

Austin B. Rohrgaugh, Jr., M.D.
Montgomery County..... February 1995 ■

Med Chi Bicentennial Celebrations

Med Chi has already begun planning celebration activities for its bicentennial in 1999. If you have any ideas or suggestions, please call Margaret Burri at 410-539-0872 or 1-800-492-1056.



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The Med Chi membership directory is published annually. It lists by county the addresses, telephone numbers, specialties, board certifications, and specialty society affiliations of all Med Chi members, as well as photographs of Med Chi officers and component society presidents. Updated information for the 1996 membership directory is listed below.

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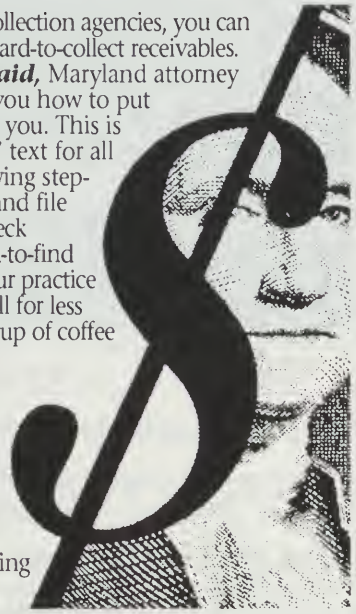
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Final note on Specialty Society Code corrections:

065 should read American College of Physician Executives
495 should read American Physicians Fellowship, Inc.

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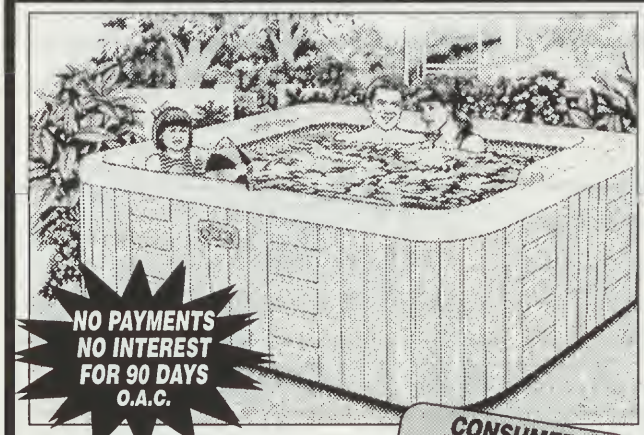
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The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

Ninth summer institute in environmental health sciences, at The Johns Hopkins University School of Hygiene and Public Health. Info: Denise Barton, 410-955-3537. — **June 3–14**

Clinical trials, 15 Cat 1 AMA credits. — **June 4–5**

Interface of biomechanics and cell biology in orthopedics. — **June 6–8**

Advanced pediatric life support, 20 Cat 1 AMA credits. — **June 10–12**

Management strategies of behavioral disturbances in dementia, sponsored by the MGS/MGA and the Geriatrics Committee of the MAFP at Keswick. No fee. Info: Joseph J. Gallo, M.D., M.P.H., 410-955-0599. — **June 11**

Age-related macular degeneration: update 1996. — **June 14–15**

Lipid disorders training program - advanced update, at the Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150. — **Sept. 6**

Lipid disorders training program - basic course, credits: TBA. Fee: $250. — **Sept. 17–19**

Third colloquium and workshops on laryngeal disorders, hands-on laboratories, at the Renaissance Harborplace Hotel and Johns Hopkins Medical Institutions, Baltimore, MD. Cat 1 AMA credits pending. — **Sept. 27–28**

22nd Annual topics in gastroenterology and liver disease, Cat 1 AMA credits pending. Fee: $535/physicians; $285/residents, fellows. Postmarked before Sept. 4: $495/ physicians; $250/residents, fellows. — **Oct. 2–4**

Tenth annual core content of emergency medicine: a comprehensive review, Baltimore Marriott Inner Harbor, Baltimore, MD. Cat 1 AMA, ACEP, and AAFP credits available. Fee before July 1: $925/physicians; $725/residents, fellows. Fee after July 1: $975/ physicians; $775/residents, fellows. — **Oct. 7–13**

Advances in pediatric nutrition, Renaissance Harborplace Hotel, Baltimore, MD. Fee: $250/ physicians; $200/residents. — **Oct. 28–30**

Advanced pediatric life support courses, 18.5 Cat 1 AMA credits. Fee: $595. — **Nov. 11–13, June 9–11, 1997**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

The Johns Hopkins Medical Institutions (continued)

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Self-Directed CME Activities

U.S. medical costs and values: primary prevention versus end stage treatment, monograph and test. Expires Aug. 1996, 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interaction: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous meetings

Clinician-patient communication in managed health care conference, sponsored by the Bayer Institute For Health Care Communication at the Hyatt Regency, Washington, DC. 12 Cat 1 AMA credits. Info: 1-800-875-4412. **May 30–June 2**

Systematic approach to the management of chest pain: a paradigm for re-engineering in medicine, sponsored by The School of Medicine, Medical College of Virginia, Virginia Commonweatlh Univerisity at the Williamsburg Marriott Hotel, Williamsburg, VA. 12.25 Cat 1 AMA credits. Fee: $$450. Info: Bonnie Ware, 804-828-4980. **May 31–June 2**

31st Annual meeting of the Association for the Advancement of Medical Instrumentation, Philadelphia Marriott, Philadelphia, PA. Info: 703-525-4890, ext. 260. **June 1–5**

Pre-, peri- and post-operative issues for the medical practitioner, sponsored by Howard County General Hospital and the University of Maryland Medical Center, Columbia Inn, Columbia, MD. 4 Cat 1 AMA credits available. Fee: $15. **June 5**

Third annual intensive review of internal medicine: an update for clinicians, sponsored by the George Washington University Medical Center, Crystal Gateway Marriott, Arlington, VA. 32 Cat 1 AMA credits. Fee: $575/physicians; $375/residents, fellows. Info: Deborah Karpowicz, 202-994-4285. **June 19–22**

Dynamic psychotherapy in the new era: possibilities and problems, sponsored by the American Psychiatric Association Office of Education at The Given Biomedical Institute, Aspen, CO. 18 Cat 1 AMA credits. Fee: $450. Info: Maria Gorrick, 202-682-6145. **July 29–Aug. 2**

Miscellaneous meetings (continued)

Continuously throughout the year

American College of Cardiology, The Heart House Learning Center, Bethesda, MD. Info: 1-800-257-4737.

Peripheral artery disease: contemporary strategies for diagnosis and therapy.	**June 3–5**
Advanced catheter ablation of cardiac arrhythmias	**June 6–8**
Interpretative echocardiography: an advanced seminar in interpretation of two-dimensional, Doppler, stress and transesophageal echocardiography	**June 10–12**
Cardiovascular magnetic resonance imaging: an important technology of today, but a major approach of tomorrow	**June 13–15**
Stent/Rotablator®/DVI: the new strategies for approaching the patient	**June 24–26**

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore. First and third Mondays of each month; 8:00–9:00 am. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, in the Zamoiski Auditorium, Thursdays, 9:00 - 10:00 am. Info: 410-578-5528.

PHYSICIAN'S RECOGNITION AWARD

During March 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

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Arturo G. Jurao
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Anthony H. Kwan
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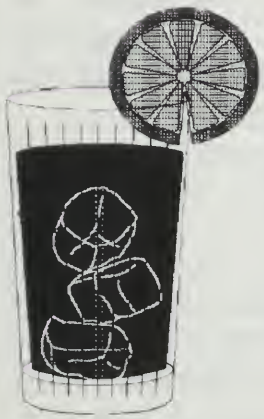
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Community Health Surveillance & Labs Admin

Ebenezer Israel, M.D., M.P.H., Director
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Bacterial Contamination of Iced Tea *and* Selected Case Definitions for Public Health Surveillance
June 1996



Within the past year, there have been several newspaper and television reports concerning contamination of iced tea with coliform bacteria. The following information has been distributed to local health officials by Dr. Robert V. Tauxe and Dr. Mitchell L. Cohen of the National Center for Infectious Diseases, Center for Disease Control and Prevention (CDC).

Background

In August 1995, a patron of a restaurant in Cincinnati, Ohio, requested that the City Health Department analyze a sample of iced tea obtained from the restaurant that had an "off odor" and looked cloudy. Laboratory testing of that sample revealed high total coliform counts as well has the presence of *Klebsiella* and *E. coli*. The Health Department collected samples of iced tea from 20 other area restaurants and found that the samples contained a median of 29,500 total coliform colony forming units (CFU) per ml (range 0 to >200,000 CFU/ml). Since then, at least three other states have conducted similar studies and have also found high total coliform counts. Local and state health departments have requested guidelines for preparing and storing iced tea in a manner that would reduce bacterial contamination.

Health Risks

The CDC is aware of only one instance in which gastrointestinal illness may have been associated with iced tea. In 1986 four persons who dined together at a Lubbock, Texas restaurant experienced gastrointestinal symptoms following the meal. No pathogen was identified. The only food item consumed by all persons was iced tea. Analysis of iced team from this restaurant and from 50 other local restaurants revealed coliform counts ranging from 0 to 1.3 million CFU/ml, with the predominant organisms being *Klebsiella pneumoniae*, *E. coli*, and *Enterobacter aerogenes*. No other illnesses were linked to the consumption of iced tea at the implicated restaurant or at other area restaurants. This outbreak was not reported to the Foodborne Outbreak Surveillance System. Review of data available in that system shows that none of 9,502 foodborne outbreaks reported from 1973 to 1991 (the years for which complete data are available) clearly linked gastrointestinal illness to iced tea.

Sources of Contamination

Iced tea could become contaminated with bacteria at any of several steps in its production, e.g., growing, harvesting, processing, transport, steeping, and storage of brewed tea. Cultures of smooth black leaf tea have yielded total coliform counts as high as 1,100 most probably number (MPN) per gram, fecal coliforms up to 23 MPN/g, and *Klebsiella* (Tea Association of the U.S.A., unpublished data). Other studies conducted by the Tea Association showed that tea brewed in a clean urn at 175°F or higher and stored at room temperature had no detectable coliform counts during the first 16 hours of storage. After that time, total coliform counts grew exponentially. Tea brewed at lower temperatures or sampled from an irregularly cleaned urn yielded coliforms, including *Klebsiella* and *Enterobacter*, after shorter storage times. Cultures of swabs of a cafeteria urn after "routine" cleaning revealed total coliform counts of up to 12,000 CFU/gram of biomaterial collected from the faucet, but not from other parts of the urn. In other studies, *Salmonella* has been documented to survive in brewed tea at room temperature.

Discussion

These studies show that indicator organisms and pathogens can survive in brewed tea, making transmission of infectious agents theoretically possible. Finding indicator organisms, such as fecal coliforms, in brewed tea does not mean that the tea is in fact hazardous. Rather, this indicates a failure in food handling or sanitation, creating a potentially hazardous condition, in which a pathogen could cause disease if it were introduced.

For tea brewed at an appropriate temperature, the issue is primarily one of storage conditions of the tea and cleaning and disinfection of the tea dispenser. Some tea dispensers in use are not easy to clean. The theoretical risk of disease transmission from brewed tea would be minimized if iced tea is brewed at an appropriate temperature in a clean urn and stored for no longer than 8 hours. The tea industry has developed guidelines for brewing tea, and for regularly cleaning and sanitizing dispenser machines. In addition, commercial food establishments and consumers wishing to reduce their exposure to a theoretical hazard may avoid brewing tea in tepid water or the practice of making "sun tea" by steeping tea bags in a container of water in the sun, because in these instances the tea is brewed at low temperature.

Summary

- Tea is a beverage with little history of disease transmission. At present, no outbreaks of infection have been reported to CDC that were clearly associated with the consumption of tea.
- Tea leaves may be contaminated with coliform bacteria. If iced tea is brewed at inadequate temperatures or in an improperly cleaned urn, or if it is stored for too long, it may grow coliform bacteria, most frequently *Klebsiella* and *Enterobacter*, and less commonly *E. coli*. In particular, the faucet of iced tea urns may provide a nidus for bacterial contamination.
- Foodhandling errors that lead to the introduction or that encourage the replication of microbial pathogens in brewed tea could theoretically result in human disease.
- Brewing iced tea at an appropriate temperature in a thoroughly cleaned urn and limiting the time held at room temperature before serving will minimize the theoretical risk of bacterial contamination.

Recommendations

1. The tea industry recommends that iced tea be brewed at 195° F for 3-5 minutes, that tea be stored for no longer than 8 hours,

and that the tea brewer, storage dispenser, and faucet be cleaned daily. These guidelines for the preparation and storage of iced tea are consistent with available data and are likely to reduce the coliform contamination of iced tea.

2. Redesigning tea dispensers to be more easily dismantled and cleaned than those currently used could further reduce the theoretical risk of bacterial contamination of iced tea.
3. The practice of making "sun tea" by steeping tea bags in a container of water in the sun may be of higher theoretical risk than brewing tea at higher temperatures because it provides an environment where bacteria are more likely to survive and multiply.
4. Questions on how to clean tea dispensers should be directed to the manufacturer of the National Sanitation Foundation: (313) 769-5763. Questions about the most appropriate measurement and interpretation of indicator organisms in food and beverages should be directed to the Food and Drug Administration, Center for Food Safety (202) 205-5140. Reports of outbreaks of disease, and consultations on their investigation, should be directed to the Foodborne and Diarrheal Disease Branch at CDC (404) 639-2206.

Selected Case Definitions for Public Health Surveillance

To monitor trends of disease and conduct surveillance activities, public health officials rely on health providers, laboratories and other health personnel to report notifiable diseases and conditions to each local and state health department. Because surveillance requires uniformity and consistency, we are providing case definitions of selected notifiable diseases.

The following case definitions were published in the Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report, October 19, 1990, Vol. 39, No. RR-13.

Aseptic Meningitis

Clinical description: A syndrome characterized by acute onset of meningeal symptoms, fever, and cerebrospinal fluid pleocytosis, with bacteriologically sterile cultures

Laboratory criteria for diagnosis: No evidence of bacterial or fungal meningitis

Case classification:

Confirmed: a clinically compatible illness diagnosed by a physician as aseptic meningitis, with no laboratory evidence of bacterial or fungal meningitis

Comment:

Aseptic meningitis is a syndrome of multiple etiologies, but many cases are caused by a viral agent.

Hepatitis, Viral

Clinical case definition: An illness with (a) discrete onset of symptoms and (b) jaundice or elevated serum aminotransferase levels

Laboratory criteria for diagnosis:

- Hepatitis A: IgM anti-HAV-positive
- Hepatitis B: IgM anti-HBc-positive (if done) or HbsAg-positive, and IgM anti-HAV negative (if done)
- Non-A, Non-B Hepatitis:
  1. IgM anti-HAV-negative, and
  2. IgM anti-HBc-negative (if done) or HbsAg-negative, and
  3. Serum aminotransferase levels >2 1/2 times the upper limit of normal
- Delta Hepatitis: HbsAg- or IgM anti-HBc-positive and anti-HDV-positive

Case classification:

Confirmed: a case that meets the clinical case definition and is laboratory confirmed

Comment:

A serologic test for IgG antibody to the recently described hepatitis C virus is available, and many cases of non-A, non-B

hepatitis may be demonstrated to be due to infection with the hepatitis C virus. With this assay, however, a prolonged interval between onset of disease and detection of antibody may occur. Until a more specific test for acute hepatitis C becomes available, these cases should be reported as non-A, non-B hepatitis. Chronic carriage or chronic hepatitis should not be reported.

Legionellosis (Legionnaire's Disease)

Clinical description: An illness with acute onset, commonly characterized by fever, cough, and pneumonia that is confirmed by chest radiograph. Encephalopathy and diarrhea may also be included.

Laboratory criteria for diagnosis:

- Isolation of *Legionella* from lung tissue, respiratory secretions, pleural fluid, blood, or other normally sterile sites, or
- Demonstration of a fourfold or greater rise in the reciprocal immunofluorescence (IF) antibody titer to ≥128 against *Legionella pneumophila* serogroup 1, or
- Demonstration of *L. pneumophila* serogroup 1 in lung tissue, respiratory secretions, or pleural fluid by direct fluorescence antibody testing, or
- Demonstration of *L. pneumophila* serogroup 1 antigens in urine by radioimmunoassay

Case classification:

Probable: a clinically compatible illness with demonstration of a reciprocal antibody titer ≥256 from a single convalescent-phase serum specimen

Confirmed: a case that is laboratory confirmed

Meningococcal Disease

Clinical description: Meningococcal disease presents most commonly as meningitis and/or meningococcemia that may progress rapidly to purpura fulminans, shock, and death. However, other manifestations may be observed.

Laboratory criteria for diagnosis:

- Isolation of *Neisseria meningitidis* from a normally sterile site

Case classification:

Probable: a positive antigen test in cerebrospinal fluid or clinical purpura fulminans in the absence of a positive blood culture

Confirmed: a clinically compatible case that is culture confirmed

Comment:

Antigen test results in urine or serum are unreliable for diagnosing meningococcal disease.

Typhoid Fever

Clinical description: An illness caused by *Salmonella typhi* that is often characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and nonproductive cough. However, many mild atypical infections occur. Carriage of *S. typhi* may be prolonged.

Laboratory criteria for diagnosis:

- Isolation of *S. typhi* from blood, stool, or other clinical specimen

Case classification:

Probable: a clinically compatible illness that is epidemiologically linked to a confirmed case in an outbreak

Confirmed:a clinically compatible illness that is laboratory confirmed

Comment:

Isolation of the organism is required for confirmation. Serologic evidence alone is not sufficient for diagnosis. Asymptomatic carriage should NOT be reported as typhoid fever. Isolates of *S. typhi* are reported to Enteric Diseases Branch, Center for Infectious Diseases, CDC, through laboratory-based surveillance.

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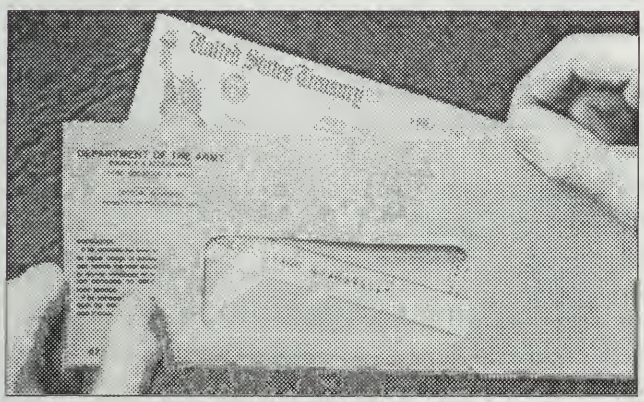
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According to John G. Bartlett, M.D., director of Hopkins' AIDS Care Program (*Moore News for Care Providers* 1996;5:18–21), the rate of AIDS cases in Baltimore is about three times the national average and in Maryland it is about twice the national average. **Maryland ranks fourth among all states in AIDS case rates** (preceded by New York, Florida, and New Jersey, and followed by California) **and Baltimore ranks seventh among major metropolitan areas** (preceded by Jersey City, Miami, San Francisco, New York City, Ft. Lauderdale, and West Palm Beach.)

Taking a break. Although low back, pubic, groin, or lower extremity radicular pain may suggest diagnoses such as degenerative disk disease, spinal stenosis, hip arthritis, or vertebral compression fracture, the authors of a retrospective chart study and literature review (*Arch Intern Med* 1996;156:668–674) believe clinicians should also maintain a high index of suspicion of sacral insufficiency fractures. **Sacral insufficiency fractures should be considered when elderly patients, especially women, present with severe, incapacitating, nonspecific pelvic or low back pain.** Symptom onset may be acute or subacute and may follow a minor trauma such as a fall from a standing or seated position. Symptoms may worsen with weight-bearing and activity and abate with rest. Marked sacral tenderness to palpation is common. Plain radiographs may not be diagnostic, but **a radionuclide bone scan often shows a specific H- or butterfly-shaped uptake pattern.** With bed rest and analgesics, most patients can return to independent walking, but full recovery may require two weeks to 24 months.

Hematocrit screening does not detect iron deficiency in infants. In a prospective study involving 321 infants aged 9 to 18 months who were from low-income families, hematocrit (Hct) and serum ferritin levels were measured and compared (*J Fam Pract* 1996;42:237–240). **Of the 51 study infants whose serum ferritin levels indicated iron deficiency, none had an abnormally low Hct level and there was no correlation between Hct and serum ferritin levels.** Although free erythrocyte protoporphyrin (FEP) has been shown to be an adequate screening test for iron deficiency, the author points out that FEP is not widely available and concludes that **primary prevention, rather than screening, may be the ideal approach to handling iron deficiency in infants.**

Basic footwork. A retrospective review comparing the prevalence and characteristics of foot problems in nondiabetic and diabetic patients indicates that **older individuals without diabetes mellitus may be at high risk for foot-related complications.** Of 101 nondiabetic patients aged 60 and older, 25% had peripheral neuropathy, peripheral vascular disease, or both at the age of 60 and the prevalence increased to 45% by the age of 80. In addition, 90% of the study subjects reported inappropriate foot care (e.g., walking barefoot; errors in soaking, nail and callus care, lubrication, and shoe choice). **The authors recommend that all older patients receive the same foot care screening and follow-up as those with diabetes mellitus** (*J Am Geriatr Soc* 1996;44:310–313).

Diagnostic acumen begins at the beginning. Results of a study of 100 **randomly selected autopsies from each of the years 1959, 1969, 1979, and 1989** at a German university hospital **indicate that the incidence of misdiagnosis was about 10% in all years analyzed** (*Medicine* 1996;75:29–40). The most common diagnostic errors were pulmonary emboli, myocardial infarctions, neoplasms, and infections. Noting that similar patterns have been found by other investigators, the researchers report that the introduction of diagnostic techniques such as ultrasound, computed tomography, and radionuclide scans has not reduced the rate of misdiagnosis and that **the patient's medical history and physical examination led to a correct diagnosis in 60% to 70% of cases.**

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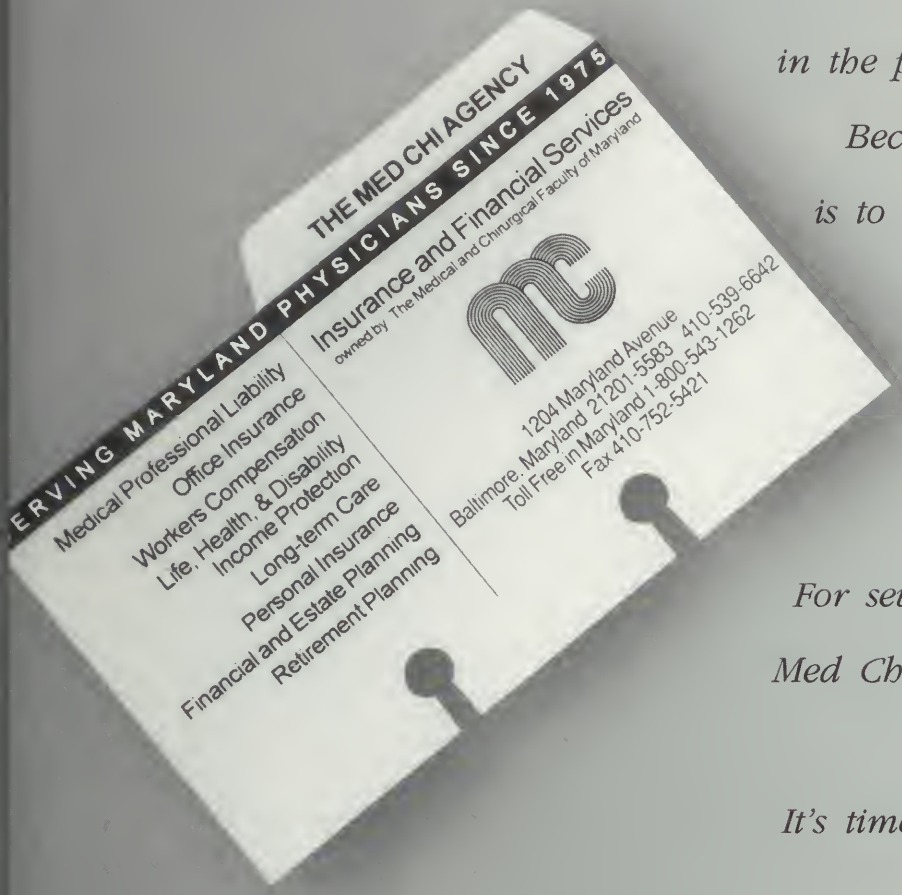
Scoping without sedation. Results of a prospective study of 258 patients who underwent **colonoscopy without conscious sedation** indicate the procedure is **safe, effective, and well tolerated by most patients.** The cecum was intubated in 250 patients (97%) and biopsies or polypectomies were performed in 77 (31%). Only 3 patients required sedation to complete the procedure. Almost two thirds of the patients reported no or only mild pain. Of the 112 patients who had a prior colonoscopy with sedation, 92 (82%) preferred the procedure without sedation. The author points out that unsedated colonoscopy not only reduces patient recovery times and costs associated with physiologic monitoring, but allows the procedure to be performed in patients who are poor candidates for conscious sedation (*Dis Colon Rectum* 1996;39:257–261).

An explanation that doesn't hold water. Nocturia is commonly thought to result in awakening secondary to a sensation of urinary urgency. However, an intriguing polysomnography study of 80 consecutive patients being evaluated for a suspected sleep disorder who awakened at least once and urinated voluntarily indicates that **nocturia may be a symptom of sleep apnea.** Immediately after each episode of nocturia, patients were asked why they awoke. After the final morning awakening, they also completed a report explaining each nighttime awakening. Although the majority attributed their awakenings to the need to urinate, the polysomnographic records showed that **79.3% of the awakenings were directly secondary to sleep apnea, snoring, or periodic leg movements of sleep—even in patients with well-known medical reasons for nocturia.** Speculating that patients may confuse their actions once awake with what caused them to awaken, the investigators caution clinicians about taking patient explanations at face value and evaluating nocturia solely for urological or other medical disorders. They conclude that **sleep apnea or other sleep disorders should always be part of the differential diagnosis of nocturia** (*Arch Intern Med* 1996;156:545-550).

Dietary protein has long been suspected to contribute to the progression of chronic renal disease, but clinical studies have produced conflicting or inconclusive evidence regarding the beneficial effects of restricting dietary protein. **Results of a recent meta-analysis,** however, **indicate that a low-protein diet significantly slows the progression of both diabetic and nondiabetic renal diseases** (*Ann Intern Med* 1996;124:627–632). The authors say their **results justify recommending dietary protein restriction for well-informed, nondiabetic patients with chronic renal disease and renal insufficiency.** For patients with type I diabetes, the authors conclude that **dietary protein restriction should be recommended to IDDM patients with progressive proteinuria despite good glycemic control and the use of angiotensin-converting enzyme inhibitors.**

A meta-analysis of seven published, randomized, placebo-controlled trials involving data on 1202 patients **indicates that prophylactic nimodipine (Nimotop) is effective in preventing delayed ischemic deficit after subarachnoid hemorrhage.** The investigators report that the benefit with nimodipine was both clinically and statistically significant and that there is strong evidence favoring its routine use after subarachnoid hemorrhage (*J Neurosurg* 1996;84:405–414).

Another potential benefit of butting out. To determine if smoking cessation or reduction has an effect early in the natural course of cancer of the cervix, British investigators recruited 82 volunteers with cervical intraepithelial neoplasia grade 1 or less who were willing to try to quit smoking. **There was a highly significant trend** ($p < 0.0001$) **between the extent of smoking reduction and change in lesion size.** At six months, 10 of the 17 women who quit smoking completely had lesion size reductions of at least 50%; of these, 4 had no visible lesion. Of the 32 women who did not reduce smoking by at least 50%, only 1 had a reduction in lesion size of at least 50%, and only 13 of the 47 women whose smoking remained above 25% of the baseline value showed a reduction in lesion size of at least 20%. Although **quitting smoking** did not guarantee a reduction in lesion size, the authors conclude that it **could have a beneficial effect on early cervical abnormalities** (*Lancet* 1996;347:941-943).



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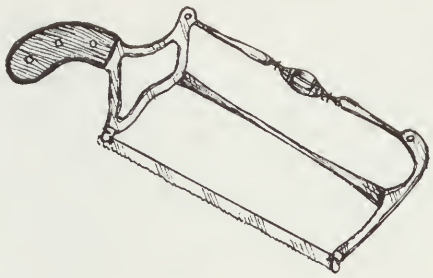
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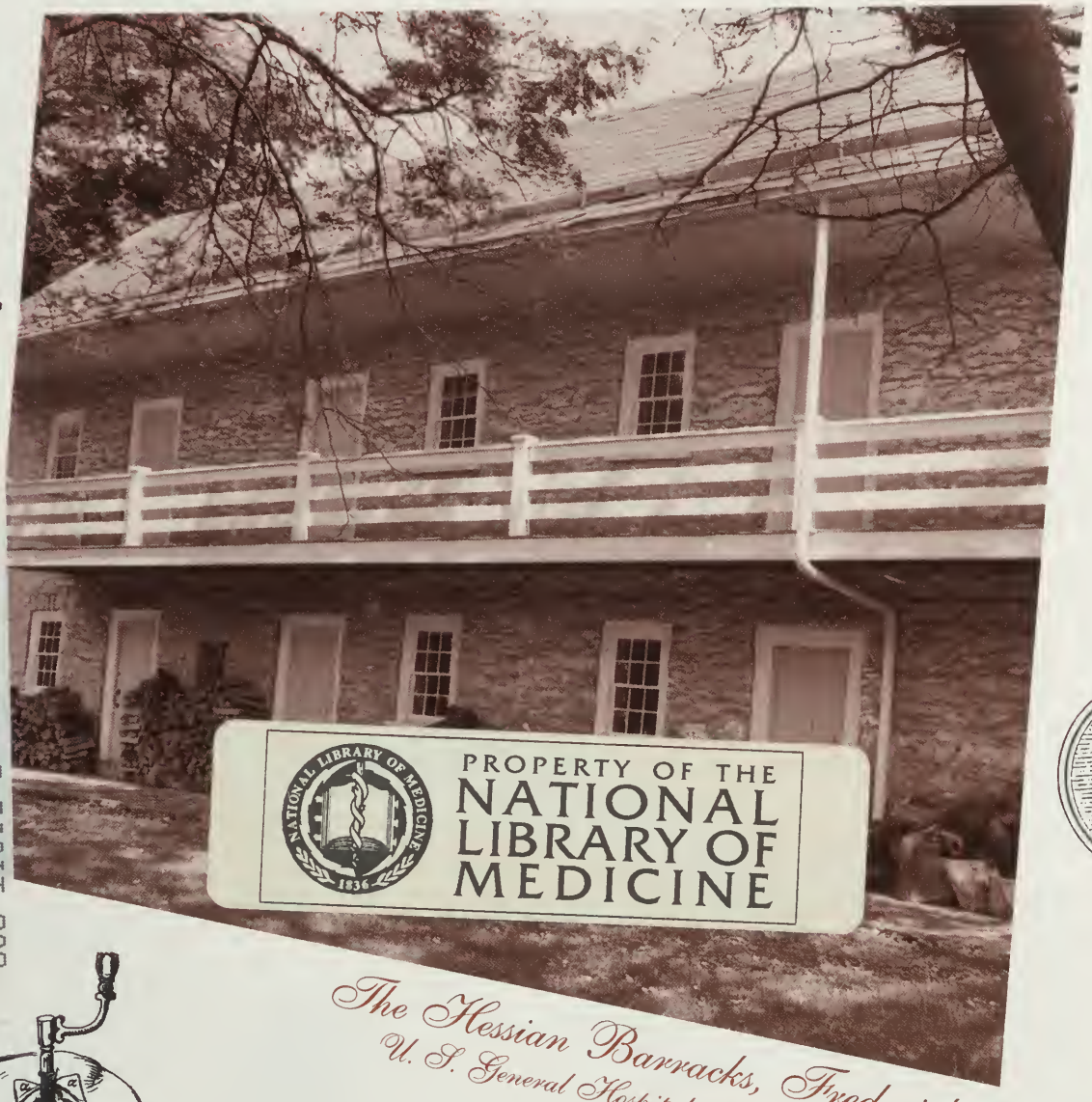
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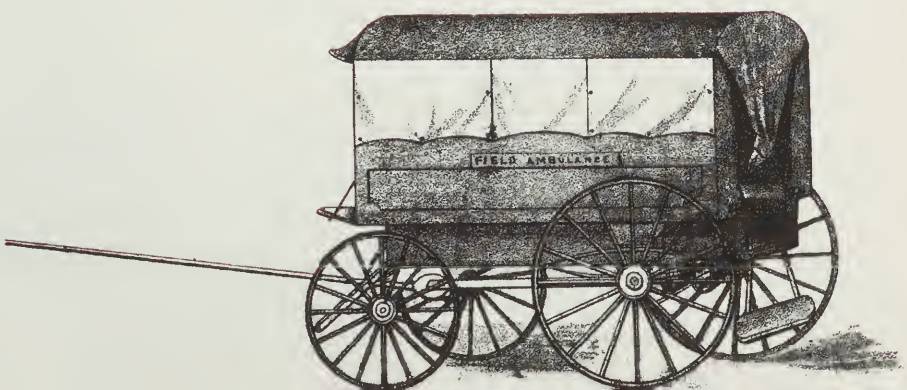


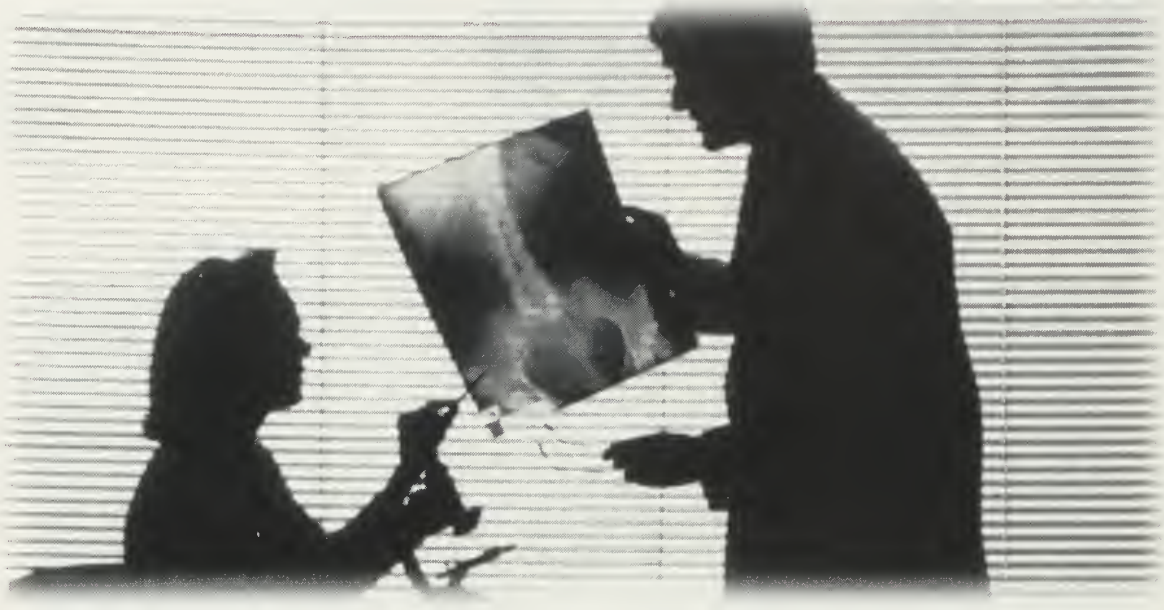


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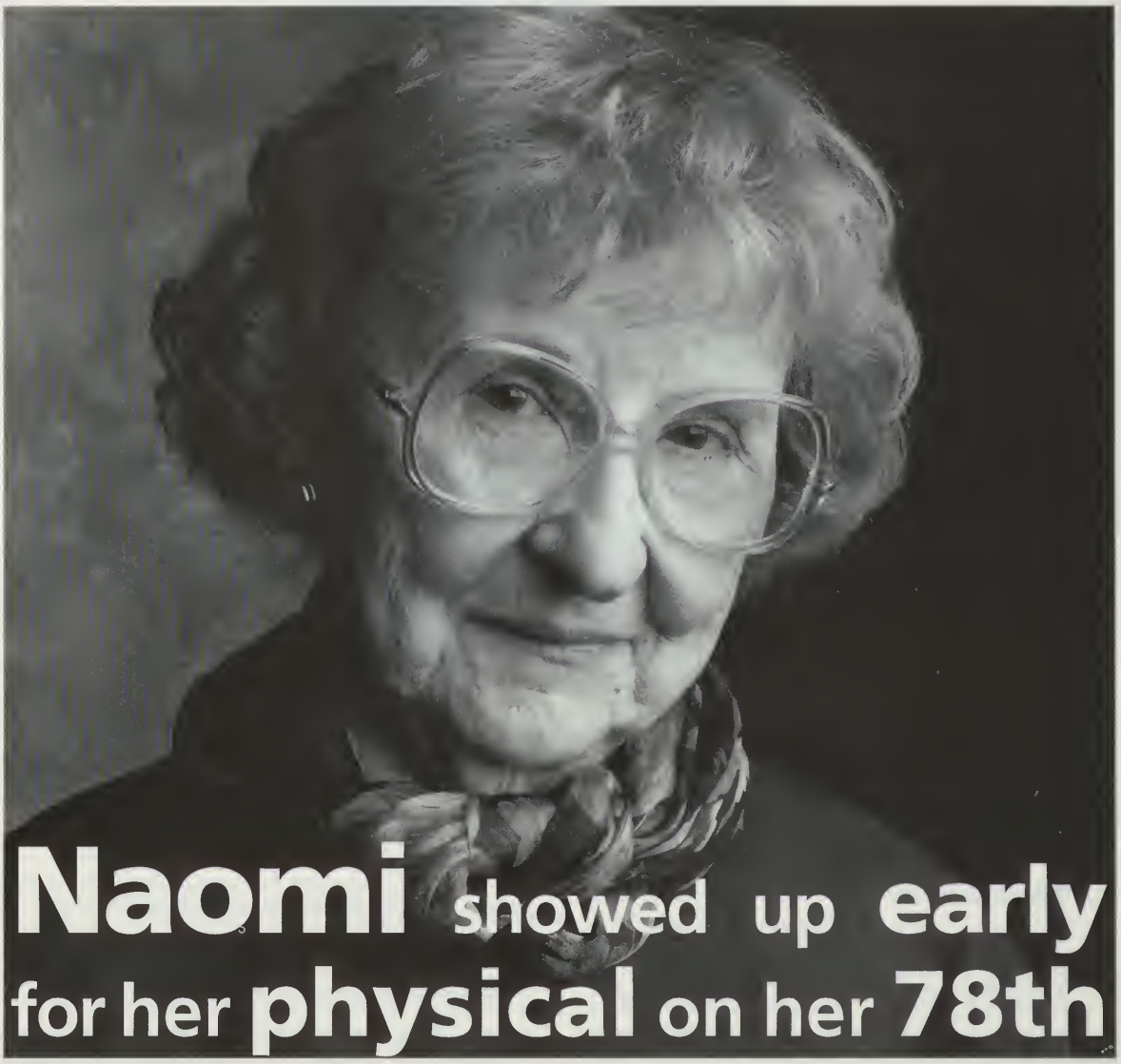
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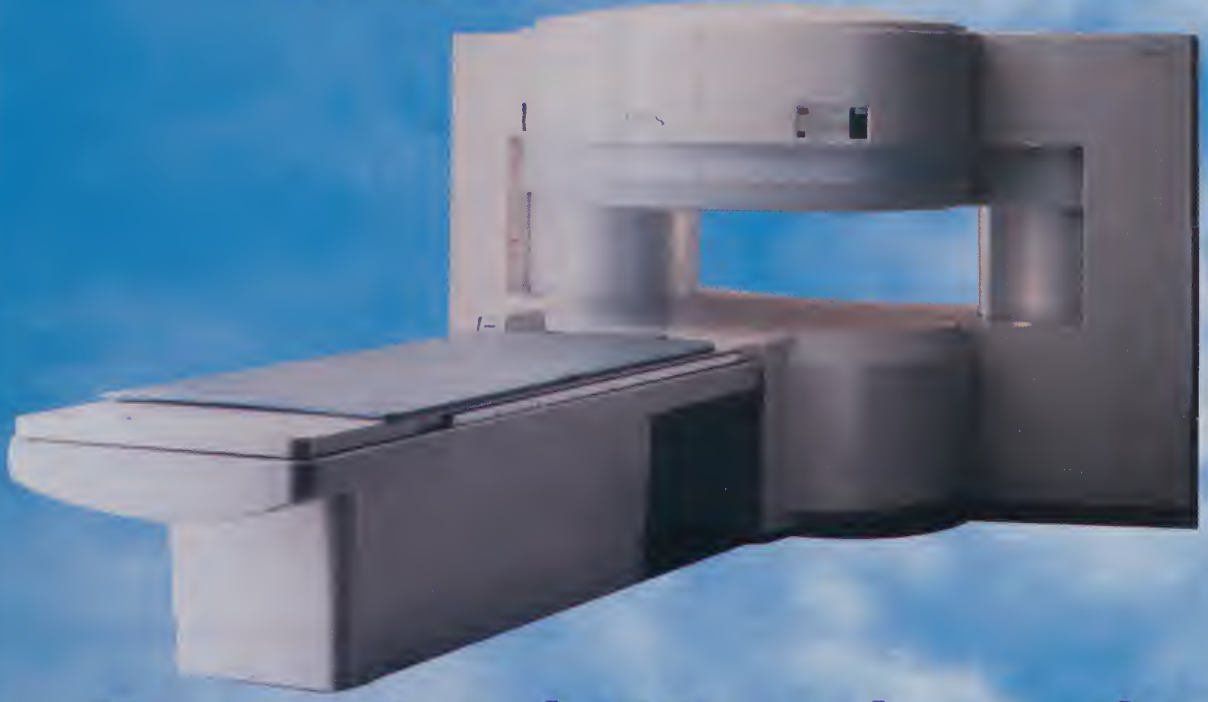
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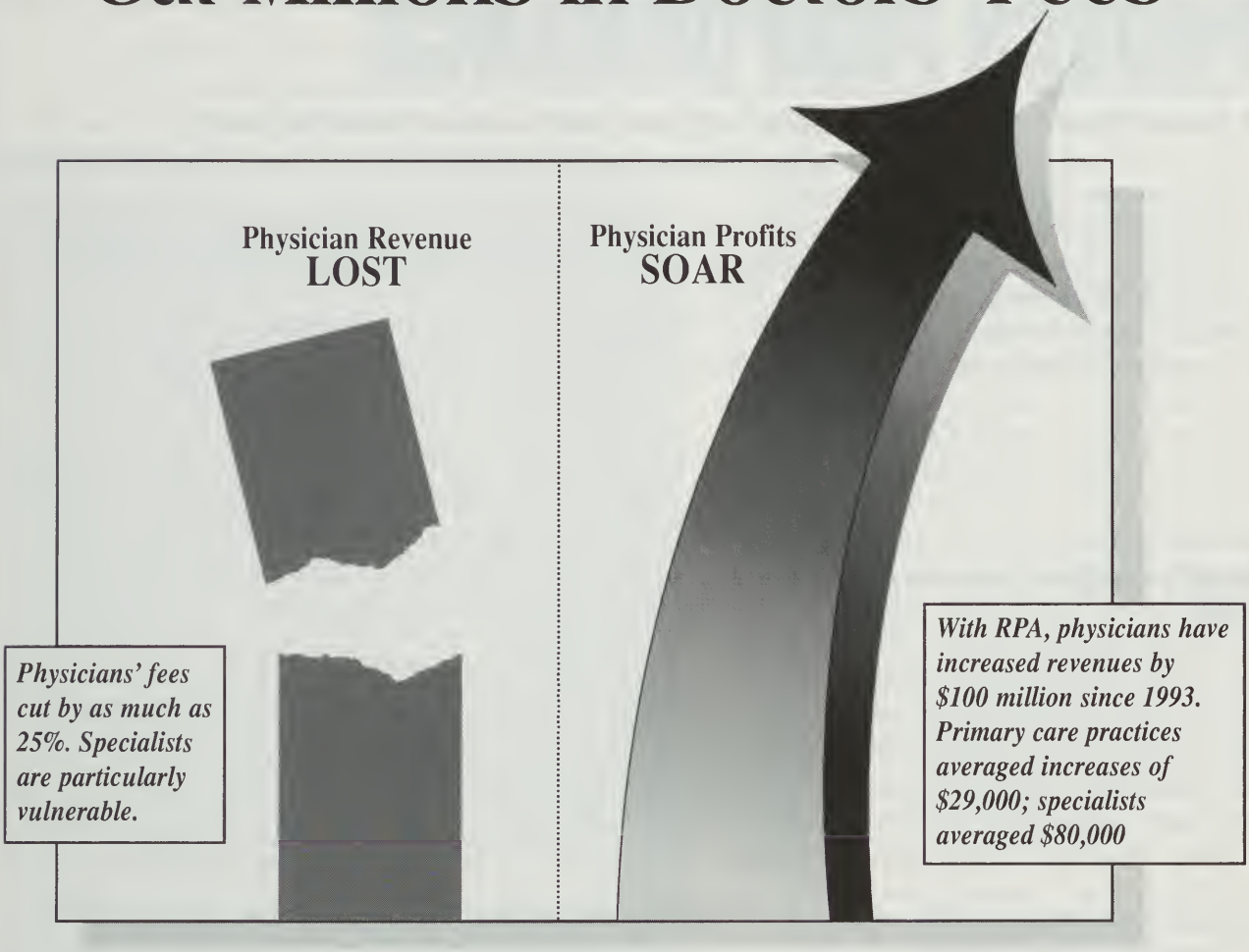
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California Bond	★★★★	★★★★★	★★★★	—
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Maryland Bond	★★★★	★★★★	★★★★	—
Maryland Short	★★★★★	★★★★★	—	—
New Jersey Bond	★★★	★★★★	★★★	—
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Chief Executive Officer's Newsletter ➤ ➤ ➤ ➤ ➤

July 1996

➤ Board of Trustees elects officers

The Board of Trustees has elected Paul A. Stagg, M.D., trustee at large, as the 1996-1997 secretary. L. Thomas Divilio, M.D., eastern county group trustee, was elected treasurer.

➤ Med Chi semiannual meeting set for September 6-8

Med Chi's semiannual meeting is slated for Friday, September 6 to Sunday, September 8, 1996, at the Sheraton Ocean City Resort and Conference Center in Ocean City, Maryland. Room rates are $135.00 per night for single/double occupancy (tax and incidentals not included). To reserve a room, call the Sheraton at 800-638-2100 and tell them you are attending the Med Chi meeting. **Reservations must be made by August 5, 1996; however, Med Chi's block of rooms may fill before that date.**

➤ AMA provides booklets on indoor pollutants

The AMA is making available two booklets, *Indoor Air Pollution: An Introduction for Health Professionals* and *Radon: A Physician's Guide*, in an effort to provide useful information to help protect the health of your patients and the general public.

These booklets provide information about health effects, symptoms, and suggested remedial actions associated with exposure to pollutants indoors. *Indoor Air Pollution: An Introduction for Health Professionals* was developed by the Environmental Protection Agency (EPA) and the American Lung Association (ALA). Additional sponsors are the AMA and the U.S. Consumer Product Safety Commission. *Radon: A Physician's Guide* was cooperatively produced by the EPA and the AMA.

The AMA is distributing these booklets as widely as possible and encourages you to make copies available to your colleagues and constituents. For a copy of *Indoor Air Pollution: An Introduction for Health Professionals*, please contact the Indoor Air Quality Information Clearinghouse at 800-438-4318 or 202-484-1307 in D.C. For a copy of *Radon: A Physician's Guide*, please call 202-233-9417.

➤ AMA and AMPAC to offer political involvement seminars

The AMA and AMPAC offer numerous resources to assist the medical community in its political involvement. The *Constituent Skills Workshops* and *Political Campaign Seminars* are produced at the request of state medical societies. The *AMPAC Campaign School* teaches the nuts and bolts of campaigns, including management. The next school is scheduled for February 19-23, 1997, in Washington, D.C. *Medicine's Candidate: A Prescription for Political Success* explores the role of the medical community candidate, the role of the family, and what to expect on the campaign trail. It is scheduled for November 14-16, 1997, in Washington, D.C.

If you would like more information about any of these programs, please contact Michelle Johnson at the AMA Division of Political Education at 202-789-7472, or e-mail at michelle_johnson@ama-assn.org.

➤ Additions to Med Mutual coverage

For Med Chi members who are insured by Med Mutual, MedGuard coverage previously available for an additional premium charge is now included at no additional charge in your Medical Mutual policy. MedGuard coverage pays the cost of Med Mutual, retaining an attorney to defend you if you are the subject of a disciplinary proceeding.

➤ Legislature seeks provider input

During the legislative session which recently concluded, some concern was expressed that there is often difficulty in obtaining timely payment from carriers for health care and vocational rehabilitation services. The Workers' Compensation Commission (WCC) has been asked to collect relevant information on this subject and to provide a report to the Workers' Compensation and Insurance Benefit Oversight Committee by September 1, 1996.

Any service provider who has experienced (or is experiencing) difficulty obtaining timely payment from insurance carriers or self-insured employers is requested to provide a report to the Commission outlining the nature of the problem. Reports should include the following:

1. Date of Treatment
2. Date of Billing
3. Amount Billed
4. Date Payment Received
5. Amount Received
6. Carrier/Employer Name
7. WCC Award/Order Issued
8. WCC Claim Number
9. Remarks/Comments

This information will be consolidated by the WCC and a report prepared for the Oversight Committee's consideration. Any service provider desiring to provide this input should submit material to the WCC at the following address no later than August 1, 1996.

6 North Liberty Street
Baltimore, MD 21201-3785
Attn: Director of Administration

Early submission is encouraged to avoid a last-minute crunch in preparing the report.

➤ People with breathing problems needed for lung studies

The Division of Pulmonary Diseases at University of Maryland Medical Center is looking for people with asthma, chronic bronchitis, and emphysema to participate in one of a number of different studies to test medications for different lung diseases. Researchers are looking for people between the ages of 12 and 65. Participants will receive compensation for time and travel and will receive a free physical evaluation. For more information, or to see if you qualify for one of the studies, call 410-706-6252.

➤ Participants needed for study on heart problems

The University of Maryland Medical Center is looking for men and women aged 55 and older who have been recently diagnosed with heart problems to participate in a study to see if exercise and nutrition can help improve their daily functioning. Participants will be given a free physical examination, and will also be enrolled in a free exercise and nutrition program. For more information, call 410-605-7179.

➤ Volunteers sought for leg pain study

The University of Maryland Medical Center is looking for men and women aged 45 and older who suffer from leg pain while walking. Researchers are studying whether nutrition and exercise can help relieve leg pain. Participants will be given a free physical examination and will also be enrolled in a free exercise and nutrition program. For more information, call 410-605-7179.

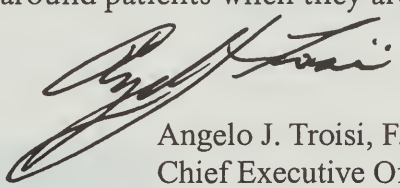
➤ Children needed for growth hormone study

The Department of Pediatric Endocrinology at the University of Maryland Medical Center is conducting a study to see if growth hormone will help children who have been diagnosed with short stature, but who do not have a growth hormone deficiency. Children must be 10 years old or younger to participate. All participants will receive free growth hormone for six months. For more information, call 410-328-3410.

➤ JCAHO tips for accreditation visits

The following items are patient privacy guidelines your practice staff should be in the habit of following, especially around the time of your next JCAHO visit.

- Do not discuss patient conditions in public places (e.g., elevators, cafeteria).
- Fax machines that are used to send or receive patient information should not be located in places that are easily accessible by patients, family members, or visitors.
- Do not leave patient information uncovered in fax machines or in/out baskets.
- Patient information should be transported in sealed envelopes, particularly if mail boxes or mail pick-up is in an area easily accessible by patients, family members, or visitors.
- Do not post patient names outside room doors or in areas where passersby can see them.
- Work at your computer in a way that does not allow others to see patient records or information from your computer screen.
- Make sure patients are properly covered when they are transported.
- Close doors and draw the curtains around patients when they are receiving care.



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Office

MEDICAL PRACTICE INFORMATION FORM

Medical
and Chirurgical Faculty
of Maryland

President's Letter

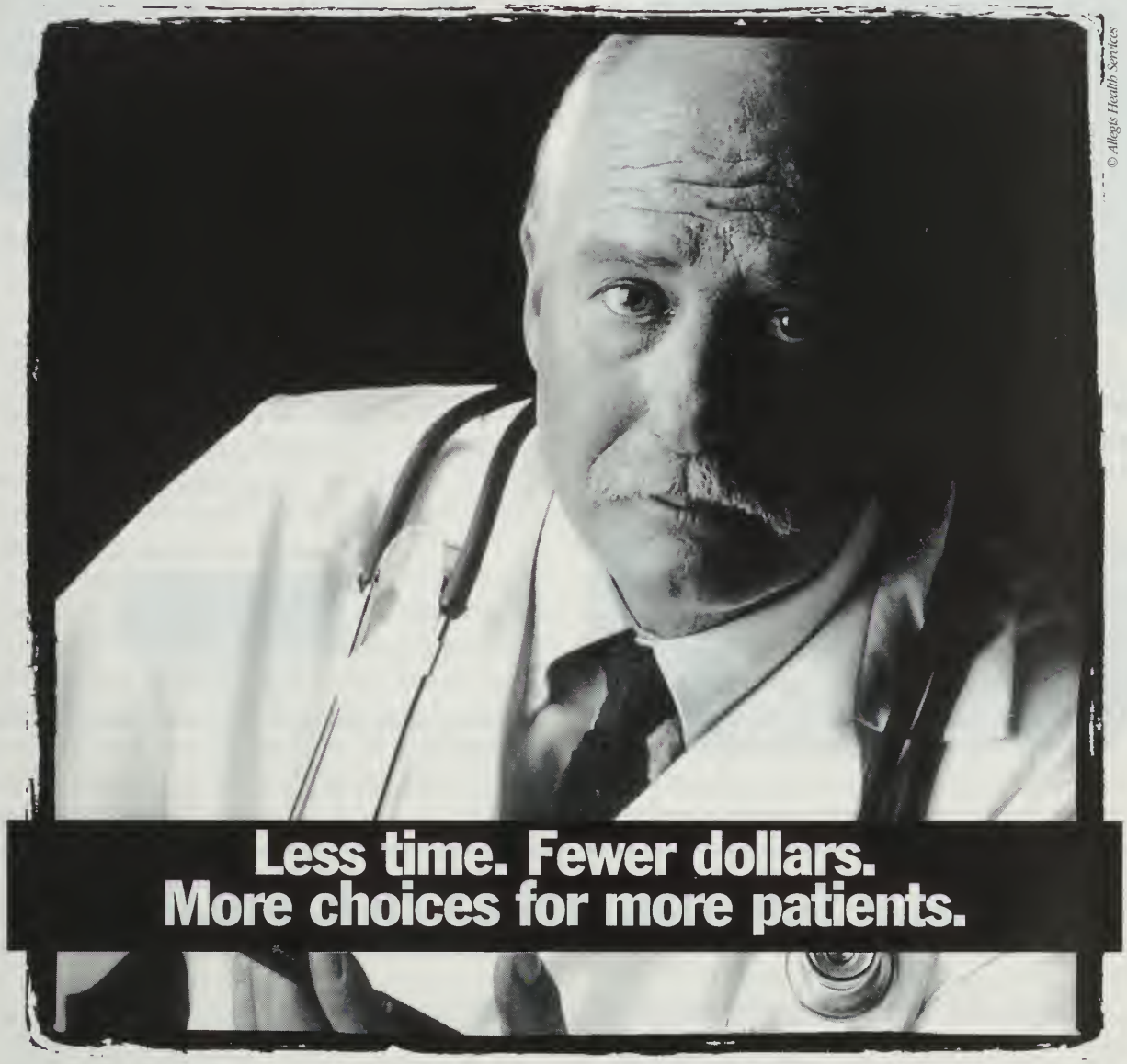
Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to members

Dear Colleague:

As you read in the June issue of *Maryland Medical Journal* (1996;45:489-491), the Department of Health and Mental Hygiene (DHMH) is asking all physicians licensed in Maryland to provide information about their medical practice via a form that will be included with the medical license renewal packet beginning this month. The information is being requested so that state agencies (DHMH, the Board of Physician Quality Assurance, the Maryland Health Care Access and Cost Commission, and the Maryland Health Resources Planning Commission) can better estimate the demand for medical services and the supply of resources, which should result in more effective allocation of state and federal funds.

On behalf of Med Chi, I urge all physicians to cooperate with the request for information by answering all questions and returning the completed forms. We have been assured that the Board of Physician Quality Assurance reviewed the questions to request only necessary information and that physician input has been used to make modifications to the 1996 form. In future years, physicians will only be asked to update information they have already supplied. The DHMH has assured us that the data collection effort is not intended to restrict or regulate the training, location, reimbursement, or medical practice patterns of any individual physician. Finally, we have been assured that the agencies involved in the data collection project will control access to and maintain the confidentiality of sensitive data: collected data will only be used for mandated purposes, and nonpublic data will be released to the public as aggregate data only.

ALEX AZAR, M.D.
President



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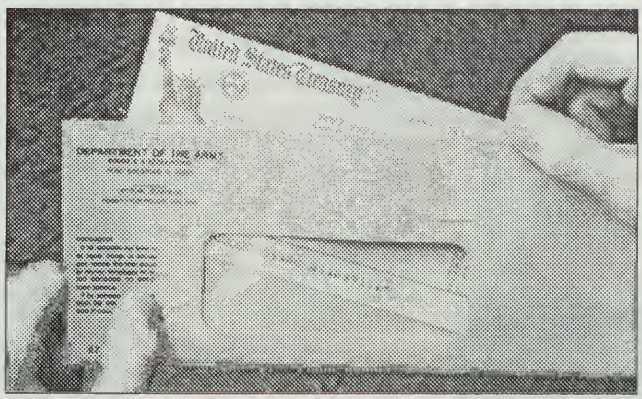
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Maryland Regulatory News Briefs

Michael Preston, J.D., Med Chi general counsel

DHMH: Medicaid reform to bring managed care to most program participants

The Maryland Department of Health & Mental Hygiene received approval for its Medicaid reform proposal in the final minutes of the 1996 legislative session, and DHMH is now racing to draft regulations that will implement the program on January 1, 1997. The schedule for review and approval of the new regulations is so tight that the final rule-writing project, including public hearings, must be complete by September 15, 1996.

The proposal, which must be approved by the federal government, will result in shifting more than 200,000 Medicaid participants into managed care organizations (MCOs) during the first six months of 1997. Approximately 25% of the Medicaid population currently is enrolled in managed care with six HMOs and another 50% is enrolled in the Maryland Access to Care (MAC) program, a primary care management system.

Long-term care and institutionalized patients, representing about 20% of the Medicaid population, are not covered by the proposal. A second phase of the reform effort covering these groups will be addressed by a long-term Medicaid advisory group, whose 15 members are to be named in June or July. A standing 25-member Medicaid advisory committee also is to be named during this period.

DHMH projects that 99% of the affected Medicaid population will be served by MCOs. Certain rare and expensive conditions will be handled by a special non-MCO case management program. MCOs will be required to provide for special needs populations, such as the homeless, substance abusers, and AIDS patients. Specialty mental health services will be administered separately by the Mental Hygiene Administration, with care contracted to a behavioral health managed care firm. Eligibility for all patients is guaranteed for six months. Physicians who have a demonstrated history of serving the Medicaid population will be guaranteed membership on at least one MCO panel.

Participating MCOs are to be paid actuarially sound, risk-adjusted capitation rates. DHMH will track the flow of information for risk adjustment and other purposes using its new Medicaid Management Information System (MMIS-II).

In addition to existing licensed HMOs, any organization of physicians and other health care providers that meets the proposed performance and solvency criteria may qualify to serve as an MCO. To qualify, an MCO must have initial capitalization in amount of at least $1.5 million and must maintain a surplus on an ongoing basis of not less than $750,000. Certain new organizations can qualify with initial capitalization of $1.25 million. DHMH Secretary Martin P. Wasserman, M.D., J.D., has indicated that DHMH will offer technical assistance to organizations desiring to qualify as new MCOs, but financial assistance is limited to the $250,000 drop-down provision for capitalization of new entities.

Parties interested in influencing the rule-writing process are encouraged to contact their local medical society or Michael Preston at Med Chi. The full text of the DHMH Medicaid reform proposal is available on the Internet at http:\\www.umbc.edu/chpdm, or from DHMH ($15) by calling 410-225-5206.

DHMH: Long Medicaid reimbursement delays, 60% claim rejection rate reported

Many physicians who participate in Maryland's Medicaid program have reported unusually long delays and other problems in obtaining payment from DHMH after it implemented its new Medicaid Management Information System (MMIS-II) in November. Meanwhile, the new system's claims scrutiny has resulted in increases in the rate of claim denials to about 60% from about 40% before implementation.

Local medical society directors have fielded a rash of complaints from members, some of whom have accumulated tens of thousands of dollars in unpaid claims for Medicaid

services, in many instances without receiving notice of any adjudication of the claims. At a meeting on May 28 with representatives of Med Chi and the medical societies of Baltimore City, Prince George's County, and Montgomery County, Dr. Wasserman and other DHMH officials acknowledged that the DHMH has experienced particular difficulty in processing claims submitted on paper, rather than electronically. DHMH officials said that by early July the turnaround time for paper claims should be reduced to the normal 4 to 6 weeks from the current 6 to 8 weeks, while electronically submitted claims should be paid within about 10 days.

Joseph Davis, DHMH programs and systems director, said a contractor was engaged May 10 to help work down the backlog of paper claims. Mr. Davis acknowledged long telephone queues to ask about claims status and affirmed policy that information can be obtained for only three claims once telephone contact is made. He encouraged physicians to submit lists of claims for status inquiries by fax using fax number 410-333-7141.

DHMH offers training sessions for physicians and their staffs for the new system. For training session information, contact Mr. Davis' office at DHMH (410-225-5400).

DHMH: Minority health care provider workgroup

Monthly meetings are slated through December 1996 for a DHMH workgroup formed earlier this year to address concerns of African-American and other minority health care providers that they are denied access to managed care panels. The group started with the encouragement of the Greater Maryland Coalition for Health Assurance, headed by Lenox Dingle, M.D., which urged an agenda calling for HMO industry agreement or, barring agreement, legislation to assure minority access to and continuation in HMO panels. The group's agenda recently has moved toward a less specific effort to formulate a "patient's rights statement" to which the parties might agree, along with training programs to help minority providers become more "managed care ready." As a result of the workgroup's efforts, a survey was issued jointly by DHMH and the Maryland Insurance Administration (MIA) in February to elicit information to describe the scope of the minority access problems. Results of the survey are still pending.

HCACC: Data collection, payment system challenged as 1997 implementation approaches

The 1993 legislative mandate to Maryland's Health Care Access and Cost Commission included not only development of health insurance reforms, but also a health care data base and physician payment system, both of which have become controversial as their 1997 implementation date approaches.

Data Collection. A storm of protest broke over HCACC's data collection effort during the recent legislative session, when health care providers and others, led by Med Chi and the Maryland Psychiatric Society, moved to require patient consent before confidential patient information is released to HCACC. Intended to gather comprehensive health care information for all patient encounters in the state, the data collection effort to date has been accomplished by a voluntary release of medical claims data by 10 insurers, in addition to Medicare and Medicaid. Beginning in 1997, the data submission ceases to be voluntary, as the law requires all insurers to submit their claims information to HCACC. The data collection does not reach patients in capitated plans or those whose employers are self-insured, groups which together represent a majority of insured patients. HCACC opposed Med Chi-backed legislative efforts to require patient consent before an insurer or other payer could release sensitive health data.

A Senate floor amendment to require patient consent failed by one vote. Med Chi and other medical societies have continued efforts to garner support for patient consent. Meanwhile, the May 20 issue of *Forbes* magazine published a highly unflattering article portraying the HCACC data base as a case of heavy-handed state regulation gone amok.

Payment System. At a June 4 public hearing, HCACC's Payment System Advisory Committee heard testimony from Med Chi and other health care interests, raising questions about the continuing validity of implementing the physician payment system feature of the 1993 Heath Care Reform legislation in its present form. The payment system consists

of a mechanism for HCACC to regulate heath care practitioner fees.

In May, the Payment System Advisory Committee heard recommendations from its economic consultant under which HCACC would adopt the Medicare RBRVS scheme as the basis for the physician payment system. But the law authorizes HCACC to reduce physician fees on examination of information from the data base showing that a particular physician group's fees are outside an annual budget for those groups set by HCACC.

The public hearing for the first time aired physician concerns about implementing this price control mechanism. The payment system features of the 1993 Health Care Reform bill were adopted in the final days of that legislative session without significant opportunity for public comment.

HCACC: Practice parameters group targets pilot project

HCACC's Advisory Committee on Practice Parameters in May recommended a pilot project to develop practice parameters in the areas of asthma management, hip replacement, and emergency room cardiac admissions. If accepted by the Commission, technical work groups will be convened to begin formulating practice parameters for these areas, using any existing practice parameters as a starting point. The work groups will be composed only of physicians and will include representatives of affected practitioners and institutional providers. Any practice parameter that emerges from the work groups can be adopted by HCACC only after it is submitted for review and approval by 60% of the specialists in the state affected by the practice parameter. The HCACC advisory committee is studying possible incentives for giving any adopted practice parameters binding effect in connection with utilization review.

HCACC: Mandates adopted for Standard Benefit Plan

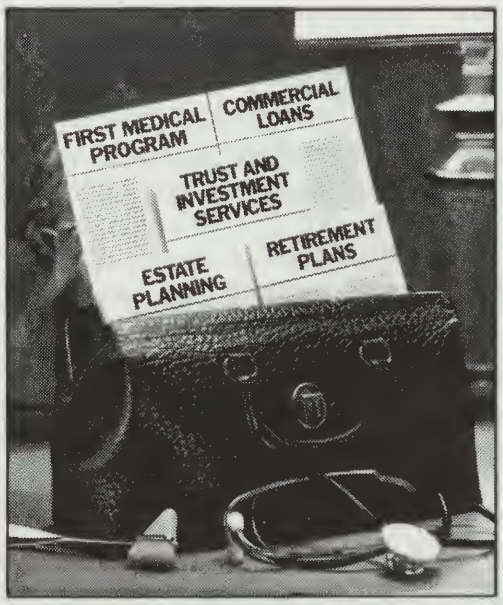
As part of the comprehensive standard benefit plan for insurers operating in the small group market (2 to 50 employees), HCACC adopted recent legislation mandating a postpartum length of stay of 48 hours after normal vaginal delivery or 96 hours after normal cesarean section, at the mother's option. HCACC is authorized by law to select or reject mandated health benefits for this section of the insurance market. HCACC estimated that this benefit will increase costs in the small group market by a hefty 1%, or $4.6 million annually.

HCACC also adopted as part of the comprehensive standard benefit plan a legislative requirement that HMOs must reimburse hospitals and emergency room providers for ER services without preauthorization for (1) medically necessary services provided to an enrollee directed to the ER by the HMO; (2)medically necessary services provided to an enrollee when the HMO fails to provide 24-hour access to a physician; or (3) medical screening services required under the federal Emergency Medical Treatment & Active Labor Act. HCACC deferred decision on two other major mandates that passed the legislature, pending actuarial analysis: (1) for coverage of reconstructive breast surgery, and (2) for in-network GYN care without referral from a gatekeeper.

HCACC: HMO quality surveys near completion

Beginning in September 1997, HCACC will produce HMO quality "report cards" based on surveys that will be issued to both HMO patients and participating physicians. Creation of the survey instruments is nearing completion, and HCACC expects to mail the surveys in March. ■

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Members in the News



Anthony J. Bollino, Jr., M.D., former president of the medical staff and director of the hospice unit at Memorial Hospital and Medical Center in Cumberland, Maryland, has been named Maryland Family Doctor of the Year for 1996 by the Maryland Academy of Family Physicians. Dr. Bollino received his medical degree from the University of Maryland School of Medicine and completed his residency in family medicine at Conemaugh Valley Memorial Hospital in Johnstown, Pennsylvania. He was chairman of the board of the Western Maryland Area Health Education Center from 1987 to 1989 and president of the Allegany Health Right, Inc. from 1992 to 1993. Currently, he is medical director of the Devlin Manor Nursing Home. A board certified diplomate of the American Board of Family Practice, Dr. Bollino has had a solo private family practice in Cumberland since 1976.



Bart Chernow, M.D., F.A.C.P., fellow and president-elect of the American College of Chest Physicians, will chair the XVIII World Congress on Diseases of the Chest and CHEST 1996 to be held October 27-31, 1996, in San Francisco. In addition, Dr. Chernow received the 1995 American College of Nutrition Annual Award, a life-time achievement honor for nutritional research. Dr. Chernow received his medical degree from the State University of New York, Downstate Medical Center, College of Medicine, New York City. He completed an internship and residency in internal medicine at the National Naval Medical Center, following which he had a clinical and research fellowship in endocrinology and metabolism at the Bethesda Naval Hospital. Dr. Chernow is a diplomate of the National Board of Medical Examiners, the American Board of Internal Medicine (ABIM) and the ABIM, Endocrinology and Metabolism. A fellow of the American College of Physicians, Dr. Chernow is a member of many professional societies and has received numerous awards and honors throughout his career. He is the author of more than 400 scientific publications, including more than 100 original reports, and has edited 14 books on critical care medicine. He is the editor-in-chief of *Critical Care Medicine* and an advisory board member of the *Maryland Medical Journal* and the *Journal of the American Medical Association.* Former associate professor at Harvard Medical School and attending physician and director of the Henry K. Beecher Memorial Research Laboratories at Massachusetts General Hospital, Dr. Chernow is currently physician-in-chief at Sinai Hospital of Baltimore, professor of medicine, anesthesia and critical care at The Johns Hopkins University School of Medicine, and program director of the Johns Hopkins University/Sinai Hospital Training Program in Internal Medicine.



Barry S. Gold, M.D., F.A.C.P., an expert in the treatment of snake bites, was awarded a Governor's Citation in recognition of his management and treatment of a 26-year-old man who was bitten on both hands by his pet monocled cobra. Dr. Gold is in the private practice of internal medicine and toxinology and is a consultant to the National Aquarium, the Baltimore and Washington Zoos, the Maryland Poison Center, and the Federal Bureau of Investigation, among others. He is an assistant professor of medicine (part-time) at The Johns Hopkins University School of Medicine and has staff affiliations with Sinai Hospital of Baltimore, Inc., and The Johns Hopkins Hospital. A diplomate of the American Board of Internal Medicine, Dr. Gold is a member of many medical and community societies and organizations and has published several articles on venomous snake bites. He earned his medical degree from the University of Maryland School of Medicine and completed an internship and residency at Maryland General Hospital.



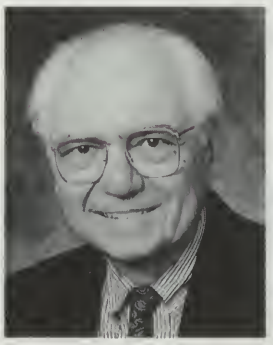
Harry C. Knipp, M.D., F.A.C.R., has recently been elected president of the Maryland Radiological Society. Dr. Knipp received his medical degree from the University of Maryland School of Medicine. He completed an internship in family practice, a residency in diagnostic radiology, and a fellowship in neuroradiology at the University of Maryland Hospital. A diplomate of the National Board of Medical Examiners and certified by the American Board of Radiology, Dr. Knipp holds full-time staff positions in the department of diagnostic radiology, ultrasound, and nuclear medicine at the Carroll County General Hospital and in the department of radiology at the Saint Joseph Medical Center in Towson. He is a board member and vice president of the medical staff at Carroll County General Hospital and a member of the Radiation Technology Advisory Committee of the Maryland State Board of Physician Quality Assurance. A clinical assistant professor of diagnostic radiology at the University of Maryland School of Medicine, Dr. Knipp is a former president of the Medical Alumni Association at the University of Maryland and a member of many professional and community organizations.



Eugene P. Libre, M.D., F.A.C.P., an internist specializing in hematology and medical oncology, recently received the John F. Maher Memorial Laureate Award from the District of Columbia Chapter of the American College of Physicians. The Laureate Award honors fellows and masters of the ACP who have demonstrated by example and conduct their abiding commitment to excellence in medical care, education, research, and service to their community, their region, and the American College of Physicians. Dr. Libre earned his medical degree from the Georgetown University School of Medicine. After two years in the Army Medical Corps, he completed his residency and a fellowship in hematology at the Veterans Administration Hospital and was a senior hematology researcher at the National Institutes of Health. Dr. Libre has been the director of medical education at Suburban Hospital for more than 25 years and was the course director of the physical diagnosis program for Georgetown University students at Suburban Hospital for nearly 20 years. Since 1986, he has been the associate medical director of the Hospice Society of Montgomery County, which chose him as physician of the year in 1993. Dr. Libre also maintains a private practice in Kensington, Maryland.



John D. Stobo, M.D., chairperson and chief executive officer of Johns Hopkins HealthCare LLC, was recently awarded a mastership by the Board of Regents of the American College of Physicians for his contributions to internal medicine. Dr. Stobo received his medical degree from the State University of New York at Buffalo and completed an internship and residency in the Osler Medical Service at Hopkins. Past president of the American College of Rheumatology, Dr. Stobo is a member of many professional societies and national committees. He has been a member of several scientific journal editorial boards and has published more than 100 scientific articles. He is vice dean for clinical sciences, associate vice president for medicine, and professor of medicine at The Johns Hopkins University School of Medicine. In addition, Dr. Stobo is vice president for network formation and a member of the board of directors of the Johns Hopkins Medical Service Corporation and the Frederick Physician Network.



John B. Umhau, M.D., a past president of the Maryland Academy of Family Physicians, was honored by the George Washington University General Alumni Association. A family physician in Chevy Chase, Maryland, Dr. Umhau is past chairperson of the Family Practice Section of the Southern Medical Association; past vice-president, delegate, and member of the council of Med Chi; past president of the Montgomery County Medical Society, past president of the Council of Medical Societies of the Washington Metropolitan Area, and past president of the Alumni Association of George Washington University School of Medicine.

LETTERS TO THE EDITOR

Patient confidentiality: help wanted

Med Chi made a splendid run at passing confidentiality legislation (HB 557 and SB 702) this past spring. The legislation would have restored the right to medical privacy to Marylanders by requiring their consent before insurance companies pass on extensive information to the Health Care Access and Cost Commission's Medical Care Data Base. On the Senate floor, Senator George Della (Dist. 47) reintroduced the core consent clause to the Committee-gutted SB 702, the companion bill to Delegate Jim Kelly's (Dist. 9B) "Data Base Notice and Consent" bill HB 557, which itself was killed in the Environmental Matters Committee. There ensued a nearly two-hour floor debate over the consent issue, which ended in a loss by merely one vote.

Restoration of privacy is definitely within reach next year if we can all work together to convince our legislature that our patients want the right to give their permission before government has access to their medical data, just as they give permission for insurance companies to have access.

Every physician can help by personally writing to his or her legislators, by contributing to any public awareness of this little-known government statutory right to collect these data, and by distributing to all patients a notice informing them of their likely inclusion in the data base. No other state allows such a privacy intrusion, and research goals do not justify the loss of such personal privacy choice, especially since HCACC research goals could be achieved through anonymous aggregate data. Consent is a simple matter of another signature zone following brief notification on the patient insurance form.

Each individual physician's help may be a crucial element in passing consent legislation in the year ahead. The most important legislators to target initially are those on the Senate Finance Committee and the House Environmental Matters Committee, because getting through these committees successfully is an essential hurdle. Now is a good time to approach your legislators.

Jennifer A. Katze, M.D.
Baltimore, Maryland

The War effort

I am so very proud of the November 1995 issue of the *Maryland Medical Journal*. It is the most comprehensive and readable coverage I have seen recently of the Maryland medical officers who served and replied to your request for individual stories of their service. A close friend of mine, Louis H. Tankin, M.D., is one of the authors (Prisoner of war. *Md Med J* 1995;44:958–962). His story will be used in the July issue of the *ITEM*, the newsletter of Oflag 64, where we were both imprisoned. The newsletter began in the prisoner of war camp with German civilian printers, typesetters, and interpreters and is still in print today. I have been the editor for about five years.

Herb Garris, Ph.D.
Pinehurst, North Carolina ■

Richard D. Moore, M.D., and Richard E. Chaisson, M.D., are among the authors of a case-control study of the effectiveness of the pneumococcal vaccine and prophylactic antibiotic therapy in modifying the risk of *S. pneumoniae* infection among HIV-infected patients. Results indicate pneumococcal vaccine may be most protective when it is administered before advanced immunodeficiency develops (*J Infect Dis* 1996;173:857–862). Drs. Moore and Chaisson are associate professors of medicine at The Johns Hopkins University School of Medicine.

John Smialek, M.D., of the Office of the Chief Medical Examiner in Baltimore, is among the authors of a study comparing the incidence and morphologic characteristics of coronary thrombosis associated with plaque rupture versus thrombosis in eroded plaques without rupture. Results expand the definition of thrombus-prone plaques to include smooth muscle cell-rich and pro-teoglycan-rich plaques associated with chronic endothelial loss. The data suggest that rupture of a thin fibrous cap overlying a lipid core is not necessarily the only final common pathway in the formation of coronary thrombi (*Circulation* 1996;93:1354–1363).

F.M. Baker, M.D., M.P.H., an associate professor of psychiatry at the University of Maryland Medical Center, is the author of a review of existing epidemiologic data on the prevalence of major depressive disorders in different, elderly U.S. populations (*J Natl Med Assoc* 1996;88:178–184).

Peter C. Rowe, M.D., is among the authors of a study to determine the added clinical benefit of nebulized budesonide in children with mild to moderate croup treated with 0.6 mg/kg oral dexamethasone. Results indicate that despite receiving simultaneous oral dexamethasone, pediatric outpatients with mild to moderate croup have added clinically important improvement in respiratory symptoms after treatment with budesonide (*Pediatrics* 1996;97:463–466). Dr. Rowe is an associate professor of pediatrics at The Johns Hopkins University School of Medicine.

Thomas C. Quinn, M.D., a professor of medicine at The Johns Hopkins University School of Medicine, is among the authors of a study to investigate a proposed relationship between *Chlamydia pneumoniae* and coronary heart disease. In patients with clinically significant CAD undergoing percutaneous coronary atherectomy, there was no evidence that *C. pneumoniae* exists within atheromas, nor did seroprevalence correlate with the presence of coronary disease in these patients (*J Infect Dis* 1996;173:957–962).

Ernest C. Borden, M.D., is among the authors of a study to evaluate Interferon alfa-2b (IFN -2b) as an adjuvant therapy following surgery for deep primary (T4) or regionally metastatic (N1) melanoma. Results indicate IFN-2b can alter the natural history of melanoma and prolong both relapse-free and overall survival by approximately 1 year (*J Clin Oncol* 1996;14:7–17). Dr. Borden is the director of the University of Maryland Cancer Center.

Mark J. Krasna, M.D., and Joseph S. McLaughlin, M.D., are among the authors of a review of all patients undergoing thoracoscopy at the University of Maryland between November 1991 and March 1995 to identify the incidence of intraoperative and postoperative complications and to analyze the role of computed tomography for predicting intraoperative complications. They conclude that thoracoscopy is a safe and effective procedure with low intraoperative and postoperative complication rates (*Ann Thorac Surg* 1996;61:1066–1069). Dr. Krasna is director of the department of general thoracic surgery and Dr. McLaughlin is professor and head of cardiothoracic surgery at the University of Maryland Medical Center.

Stephen T. Bartlett, M.D., is the author of invited commentary on a study of prolonged bleeding during renal transplantation (*Arch Surg* 1996;131:160–165). Dr. Bartlett is an associate professor and head of transplant surgery at the University of Maryland Medical Center.

Andrea M. Corse, M.D., Tom O. Crawford, M.D., David R. Cornblath, M.D., Ralph W. Kuncl, M.D., Ph.D., and John W. Griffin, M.D., are among the authors of a report examining the pathologic changes in sensory nerve fibers in multifocal motor neuropathy (MMN) to determine if demyelination extends to sensory fibers and whether MMN can be distinguished from chronic inflammatory demyelinating polyneuropathy (CIDP). They conclude that MMN is not an exclusively motor abnormality and that distinctive clinical features support the concept of MMN as distinct from CIDP (*Ann Neurol* 1996;39:319–325). Dr. Corse is an instructor of neurology, Drs. Cornblath and Kuncl are associate professors of neurology, Dr. Crawford is an assistant professor of neurology and pediatrics, and Dr. Griffin is a professor of neurology and neuroscience at The Johns Hopkins University School of Medicine.

A. Marc Gillinov, M.D., William E. Curtis, M.D., R. Scott Stuart, M.D., Duke E. Cameron, M.D., William A. Baumgartner, M.D., and Peter S. Greene, M.D., are among the authors of a retrospective review to develop recommendations for evaluation and treatment of patients with acute neurologic dysfunction who require valve operations for endocarditis. They report that neurologic deficits are common in patients with endocarditis referred for cardiac surgery. Despite substantial preoperative morbidity, most of these patients do well if surgery can be delayed 2 to 3 weeks. Computed tomography scan is the preoperative imaging technique of choice; cerebral angiogram is indicated only if CT shows hemorrhage (*Ann Thorac Surg* 1996;61:1125–1130). Drs. Gillinov and Curtis are postdoctoral fellows, Drs. Stuart and Greene are assistant professors, Dr. Cameron is an associate professor, and Dr. Baumgartner is the director of the division of cardiac surgery at The Johns Hopkins University School of Medicine.

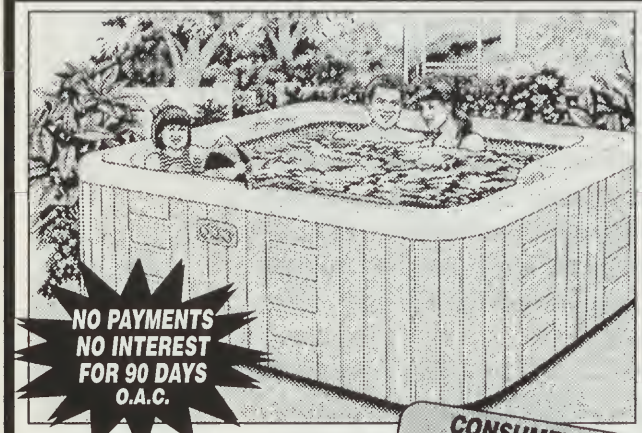
Eugene R. Bleecker, M.D., and Jeffrey D. Hasday, M.D., are among the authors of a study to determine the effect of inhibiting the formation of the 5-lipoxygenase products leukotriene B_4 (LTB_4), leukotriene C_4, (LTC_4), LTD_4 and LTE_4 on exercise-induced bronchospasm by pretreating asthmatic subjects with a potent 5-lipoxygenase inhibitor, zileuton. They report that zileuton can attenuate exercise-induced asthma, indicating that leukotrienes are important biochemical mediators in the development of exercise-induced bronchospasm and that leukotriene may have a role in the treatment of this disorder (*Am J Respir Crit Care Med* 1996;153:931–935). Dr. Bleecker is a professor of medicine and Dr. Hasday is an associate professor of medicine and pathology at the University of Maryland Medical Center.

Lloyd E. Ratner, M.D., Edward Kraus, M.D., Thomas Magnuson, M.D., and Jeffrey S. Bender, M.D., are the authors of a review of 105 consecutive kidney transplantations to determine outcomes between patients receiving grafts from expanded criteria donors (ECDs) and others. They found that with the appropriate selection of organs from ECDs, acceptable results can be obtained, and ECD organs can serve to partially alleviate the extreme organ shortage (*Surgery* 1996;119:372–377). Drs. Ratner and Magnuson are assistant professors of surgery, Dr. Kraus is an associate professor of medicine, and Dr. Bender is an associate professor of surgery at The Johns Hopkins University School of Medicine.

Jonathan Cohn, M.D., from the division of infectious diseases at the University of Maryland Medical Center, is among the authors of a study to determine the virologic effects of initiating antiretroviral monotherapy early in the course of infection with human immunodeficiency virus. The results, published in *The Journal of Infectious Diseases* (1996;173:849–856), indicate that early antiretroviral monotherapy with zidovudine had no effect on virologic parameters in this group of patients with relatively high CD4 T lymphocyte counts and low measures of virus load at baseline.

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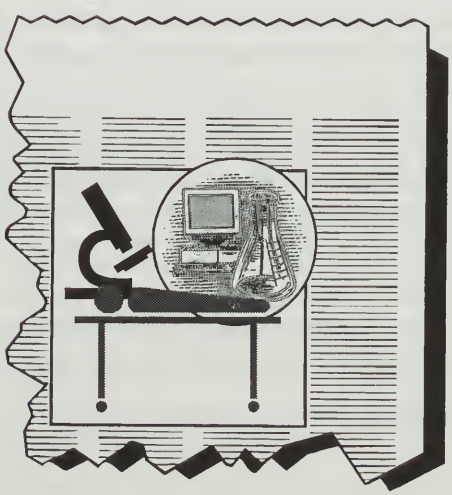
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  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
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Discovering asymptomatic biochemical abnormalities on a Baltimore internal medicine service

Robert P. Ferguson, M.D., Frank R. Kohler, D.O., Jose Chavez, M.D., Joseph Puthumana, M.D., Sohail Zaidi, M.D., and Huma Shakil, M.D.

From The Union Memorial Hospital, Baltimore, Maryland, where Dr. Ferguson is chief of medicine, Dr. Kohler is a member of the general medicine faculty, and Drs. Chavez, Puthumana, Zaidi, and Shakil are residents.

ABSTRACT: *To assess the frequency of abnormalities that could be discovered through biochemical profile screening on patients admitted to a city hospital internal medicine ward service, we conducted a prospective cross-sectional chart and laboratory review. All unassigned patients admitted to the general medicine service during 1- to 2-month periods in late 1993 and the spring of 1994 were eligible. The main outcome measures were frequency of abnormal test results and identification of significance. Admitted patients (N=222) were evaluated with a 24-panel biochemical profile. Of 5,328 tests, 29% were outside the standard reference range. Of 3,851 tests classified as screening, 1,049 (27%) were outside the reference range. Of overall screening tests, 741 (19%) were judged potentially important by the predetermined criteria. The prevalence did not differ significantly when analyzed by age, race, gender, or history of substance abuse. Our experience indicates that asymptomatic biochemical abnormalities are common in patients admitted to a city hospital medical service and that admission biochemical screening is an effective method of identifying potential comorbidity. Further studies are needed to assess the impact of this approach.*

Biochemical profiles have been available for almost 30 years.[1] As the technology of biochemical profiles spread, they became a standard component of the patient data base. However, subsequent studies failed to find clinical utility in this approach. Most investigators found a low prevalence of abnormal results, many of which were anticipated by the history and physical examination or were only marginally abnormal,

considered likely to be false positives.[2-4] These studies identified few opportunities to make an effective impact on early disease processes. As a result, the use of biochemical profiles as screening case-finding tools has been discouraged in favor of clinically directed testing.

The risk of unanticipated comorbidity is significantly different in different populations.[5] A lack of clinical benefits of screening in one population cannot necessarily be extrapolated to a different group. One would expect, for example, a higher incidence of comorbidity in a city hospital medical inpatient service with its high proportion of economically and socially disadvantaged individuals, many with sporadic access to health care. To our knowledge, none of the previous negative studies of biochemical profiles was done in a population of this description. We concluded, as have others,[5] that further investigation of biochemical profiles in this setting was necessary.

We undertook a prospective study on the medical service of our urban general hospital. Our objective was to identify the frequency of unexpected screening abnormalities in a routine biochemical profile at the time of admission. Our goal was to determine whether biochemical profile screening in this patient population would be a useful case-finding tool.

Patients and methods

The Union Memorial Hospital (UMH) is a 400-bed, university-affiliated, acute care hospital in central Baltimore, Maryland. Subjects eligible for the study were unassigned patients admitted to the general medical service. All noncritical care patients were eligible except those undergoing chronic dialysis. The study enrolled 222 subjects in 1993 and 1994.

The components of the biochemical profile were sodium, potassium, chloride, carbon dioxide, serum urea nitrogen, creatinine, glucose, cholesterol, triglyceride, albumin, globulin, lactic dehydrogenase, alkaline phosphatase, creatine kinase, alanine transferase, aspartate transferase, gamma-glutamyl transpeptidase, amylase, bilirubin, iron, uric acid, calcium, magnesium, and phosphorous. Our laboratory routinely saves sera from all admissions for seven days. The assays were measured using a Beckman Synchron CX7 (Brea, CA) and Beckman reagents. Quality control was maintained through the standard UMH department of laboratory medicine technique: normal and abnormal controls were performed each shift, linearity was validated periodically, and external proficiency testing was determined acceptable by the College of American Pathologists. Quality control testing showed a within-run coefficient of variation (CV) < 2.0% and a typical daily CV of < 3.0%.

The research team consisted of four residents and two UMH faculty members. During study intervals, a member of the team obtained a list of general medical admissions at morning report three times a week. The admission history and physical for each eligible patient was copied and the laboratory notified to perform the 24-test biochemical profile on the saved sera. Cases were excluded if the laboratory reported insufficient serum or evidence of hemolysis.

At thrice weekly meetings, one team member reviewed a case's admission history and physical form, recorded the demographics, and presented it to the group. A complete differential diagnosis list and work-up was developed using consensus methods.[6] Component tests of the biochemical profile were prospectively identified as *indicated* or *screening*. *Indicated* meant that the clinical presentation (i.e., the present illness and past medical history as recorded by the PGI) dictated the need to do the test. All tests that were not indicated by the patient's clinical presentation were labeled as *screening*.

The abnormal results in the screening category were further reviewed to assess potential significance. In many tests, a wider reference range was used (e.g., ±3 standard deviations [SD] similar to the methods described by previous investigators) to decrease false positive test results. In other tests, an SD of ±2 was used because the laboratory reference range was sufficiently broad that further expansion was not practical (e.g., calcium). Other abnormal results were considered unimportant because an abnormal value has no known clinical implications (e.g., low amylase). What remained were results that were not indicated; that by a prospective consensus were potentially important; and that exceeded our adjusted reference ranges. These were our "potentially important" abnormal results.

Results

Of the 222 study subjects, 50% were male, 73% were black, and 27% were white. The mean age was 50 (range 18-94). Thirty-eight percent admitted to a history of alcohol and/or drug abuse, and 13% were HIV positive.

The number of tests performed was 5328. The overall abnormal rate was 29%. By consensus, 1477 tests were indicated. Thus, the remaining 3851 tests were considered screening. Of the latter, 1049 (27%) were outside the laboratory reference range. By our previously described

criteria, 741 (19%) were judged to be potentially important abnormalities.

The percentage of abnormal screening results by test is shown in **Table 1**. Potentially important screening abnormal values occurred in at least 15% of patients in 13 different tests (chloride, glucose, cholesterol, triglycerides, gammaglutamyl transpeptidase, amylase, aspartate transferase, iron, uric acid, magnesium, alkaline phosphatase, lactic dehydrogenase, and creatinine). There were no significant differences in the prevalence of potentially important screening test results when analyzed by race, age, gender, substance abuse, or HIV disease (range 18% to 25% in each subgroup).

Table 1. Results of screening tests

Component	Number of tests	Abnormal results % (n)	Potentially important results % (n)
Iron	208	54 (113)	54 (113)
Aspartate transferase	159	41 (64)	37 (58)
Lactate dehydrogenase	191	47 (93)	34 (64)
Cholesterol	197	37 (72)	32 (63)
Magnesium	177	50 (89)	29 (51)
Uric acid	216	43 (92)	25 (54)
Gammaglutamyl transpeptidase	161	24 (39)	24 (38)
Glucose	146	40 (57)	23 (34)
Chloride	89	31 (28)	17 (15)
Triglycerides	209	21 (43)	17 (35)
Alkaline phosphatase	161	22 (35)	16 (26)
Creatine kinase	189	19 (36)	16 (31)
Amylase	192	26 (51)	15 (28)
Globulin	213	23 (49)	14 (30)
Alanine transferase	159	13 (21)	12 (19)
Albumin	190	13 (24)	10 (19)
Carbon dioxide	89	18 (16)	8 (7)
Total bilirubin	154	10 (15)	8 (13)
Creatinine	89	11 (10)	8 (7)
Sodium	86	15 (13)	7 (6)
Calcium	187	13 (24)	7 (14)
Potassium	86	15 (13)	5 (4)
Urea nitrogen	89	21 (19)	4 (4)
Phosphorus	217	15 (33)	4 (8)
Total	3851	27 (1049)	19 (741)

Discussion

The value of a screening test depends on its sensitivity, specificity, the prevalence of the underlying disease process, and the ability to impact favorably on the discovered disease process. Most studies of biochemical screening have yielded a low prevalence of abnormal results and/or little change in care or patient benefit. The usefulness of a test, however, is related to the patient population studied. Our subjects were patients admitted to a city hospital medical service. Their characteristics were typical of those found on an internal medicine service in an urban hospital in the 1990s. They included large numbers of elderly, uninsured patients with inconsistent access to medical care and persons with a history of substance abuse. Such unassigned patients often have crisis-oriented care. The risk of asymptomatic comorbidity is potentially higher in this group. The hospital admission may provide a rare opportunity to screen for disease.

The study population yielded a high prevalence of abnormal blood chemistries. Of the 5328 test results, 29% were abnormal. Of the 3851 screening test resutls, 27% were abnormal and, 19% were considered potentially important by the investigators after using the described criteria to evaluate significance. We believe this percentage exceeds that discovered in any prior published study of a similar nature.[1,2,5,7-9] Based on our case finding percentage and other factors, we believe that certain test results deserve further comment.

Liver function tests. The high prevalence of liver function abnormalities in patients with both alcohol and IV drug abuse history is no surprise and has been established by others.[7,8] Identification of asymptomatic liver diseases is important clinically and has implications for future patient management.

Glucose. Screening for hyperglycemia in this population should be done in light of standard management recommendations.[10]

Cholesterol. We also believe that in light of current health maintenance recommendations[11] and our high yield, all patients' cholesterol levels should be screened in this setting.

Magnesium. Our hypomagnesemia prevalence of 53% is similar to findings on other medical inpatient services. Lum and colleagues[12] reported a 41% prevalence of hypomagnesemia on an acute inpatient service, and Whang and coworkers[13] found a similar prevalence, 90% of which was not suspected. Hypomagnesemia appears to be very common in the hospitalized medical patient and should be routinely screened for and treated.

Iron. Despite the widespread popularity of iron as a screening test, there are significant questions about the use of this test in the diagnosis of iron deficiency and other forms of anemia.[14] False positivity due to day-to-day variation in iron status indexes[15] as well as the reliability of standard laboratory iron analysis[16] are two of the issues. In light of the strikingly high prevalence in our study population, we believe that further investigation is indicated.

Amylase. Elevated serum amylase levels can be found in HIV positive patients due to pancreatitis or elevated salivary levels.[17] In 28 known HIV positive patients in our study, 15 (54%) had high amylase levels. In the HIV negative group, amylase levels were elevated in 25%. Various amylase measurement techniques have added to the confusion regarding the significance of elevations.[18] The clinical significance of asymptomatic hyperamylasemia in hospitalized patients has yet to be determined.

Creatine kinase (CK). In a 1986 study, Black and colleagues[19] reported that mean levels of creatinine phosphokinase in asymptomatic black men was 146.5 units per liter compared to 60.8 units per liter for white men. In our total sample, the median CK level was 299 for blacks and 199 for whites. Our use of a 3 SD reference range increased our normal upper limit of CK levels from 269 to 330.8 units per liter. Using this range, 16% of subjects had elevated levels (slightly more blacks than whites). The presence of asymptomatic elevation in our patients is unexplained.

Uric acid. Other investigators have reported a high prevalence of uric acid elevations,[1,8] but not as high as in our study, where 43% of asymptomatic patients had abnormal levels and 25% reached +3 SD threshold. Our results clearly suggest that screening for hyperuricemia is indicated.

Results of the current study indicate that multichannel biochemical screening has a high yield of potentially important information, a conclusion not reached by other investigators when studying other low-yield patient populations. Our findings suggest that the "panel" approach makes economic and clinical sense in the setting studied. We believe that further study is indicated to see whether this information will have an impact on clinical outcomes. Based on the frequency and severity of the screening abnormalities discovered in our study, we expect that this approach would be beneficial for patient care.

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CASE RECORDS

of the University of Maryland and Baltimore VA Medical Centers

A 72-year-old man with shortness of breath

Susan K. Bennett, M.D., discussant

R. Michael Benitez, M.D., editor

Dr. Bennett is an assistant professor of medicine in the division of cardiology at the University of Maryland Medical Center. Dr. Benitez is a cardiologist and assistant professor of medicine at the University of Maryland School of Medicine.

Presentation of case

History. A 72-year-old man was admitted to a hospital in May 1994 for an episode of unsteady gait. He had documented coronary artery disease and had undergone prior coronary artery bypass grafting following a myocardial infarction (MI). He had a history of long-standing hypertension and hypothyroidism, both of which were controlled with medication. An echocardiogram showed mild to moderate global hypokinesis and an estimated left ventricular ejection fraction of 40%. Duplex carotid ultrasound showed a significant left internal carotid stenosis and the patient underwent carotid endarterectomy. At discharge, his exercise capacity was slightly decreased.

Table 1. Laboratory values

Hematologic	
• hematocrit	0.40
• white blood cell count	9.4 x 10^9/L
• platelet count	352 x 10^9/L
Chemical	
• sodium	130 mmol/L
• potassium	4.3 mmol/L
• chloride	91 mmol/L
• carbon dioxide	27 mmol/L
• creatinine	132.6 mol/L
• glucose	8.3 µmol/L
• albumin	31 g/L
• total protein	57 g/L
• thyroid stimulating hormone	2.1 mU/L

The patient subsequently developed dyspnea on exertion, to the point that he could no longer walk to his daughter's house one mile away without stopping. The dyspnea was associated with a dull heaviness in the left side of the chest that radiated to the neck and back. He was again admitted to a hospital. Myocardial infarction was ruled out by enzymes. A radiograph of the chest was interpreted as suggesting pulmonary edema and diuretics were administered. Plans were made for a cardiac catheterization and the patient was transferred to the University of Maryland Medical Center.

While awaiting catheterization, the patient lost consciousness. His monitored cardiac rhythm at the time was atrial fibrillation with a rapid ventricular response. He was admitted to the coronary care unit, where his ventricular rate was controlled with digoxin. His sinus rhythm converted to normal after the administration of intravenous procainamide.

The patient lived on a farm. He had smoked one pack of cigarettes per day for the past 40 years and used alcohol socially. He had been a shipfitter for a steel company from 1944 to 1947 and a furnace operator at a stainless steel works from 1947 until his retirement in 1979.

Physical examination. The supine blood pressure was 130/70 mm Hg, the pulse rate was 100, the respiratory rate was 20, and the temperature was 97.5° F. There was no jugular distension. There was a healed scar over the left carotid artery. The carotid upstroke was normal and there were no bruits. There was no lymphadenopathy or thyromegaly. Examination of the chest showed coarse bilateral rhonchi, but no wheezes or rales. The cardiac rhythm was regular, and the point of

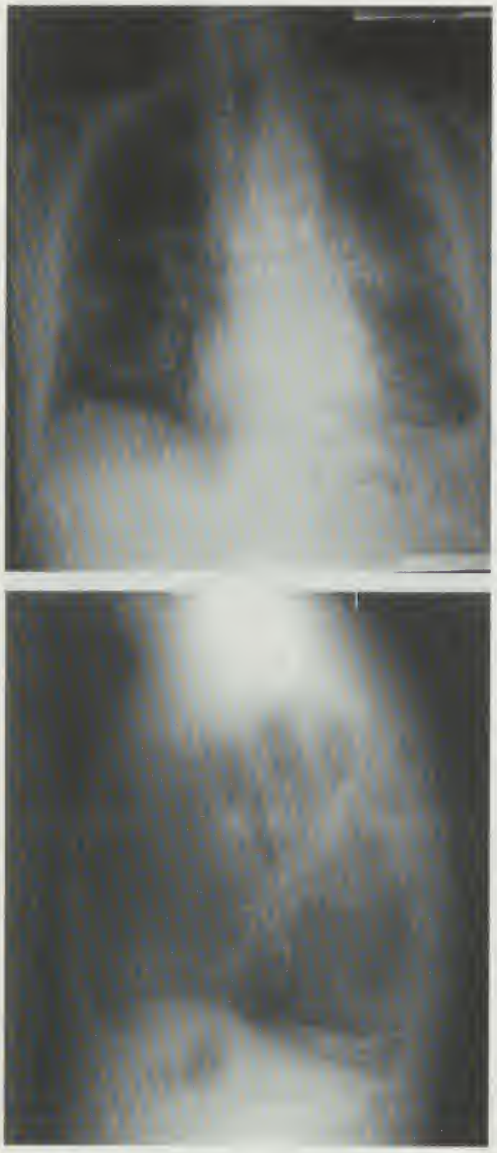


Figure 1. Posteroanterior and lateral chest radiographs at admission.

maximal impulse was diffuse. An ejection quality murmur that was II/VI in intensity was heard at the left upper sternal border without radiation. The first heart sound was normal. The second heart sound was physiologically split with inspiration and a fourth heart sound was heard at the apex. The spleen and liver were normal in size and bowel sounds were normal. The peripheral pulses were normal and there was no peripheral edema. Results of a neurologic examination were normal.

Hematologic and laboratory results are shown in **Table 1**. An electrocardiogram (ECG) showed sinus tachycardia at a rate of 100 bpm. There were moderate voltage criteria present suggesting left ventricular hypertrophy as well as a mild repolarization abnormality in the infero-lateral leads that was not significantly different from prior ECGs. There was no evidence of prior Q wave MI. The patient's chest radiograph showed bilateral interstitial infiltrates, volume loss on the left, calcified mediastinal lymph nodes, and left pleural thickening (**Figure 1**).

Hospital course. The patient underwent a right and left catheterization with coronary cineangiography. The right atrial pressure was 8 mm Hg, the right ventricular pressure was 32/10 mm Hg, the pulmonary arterial pressure was 32/18 mm Hg, and the pulmonary capillary wedge pressure was 18 mm Hg. The cardiac output was 4.13 liters per minute as measured by thermodilution. There was no significant gradient between the left ventricle (LV) and aortic systolic pressures. There was severe native coronary artery disease that was unchanged when compared with preoperative catheterization films. An internal mammary graft to the left anterior descending (LAD) and saphenous vein grafts to the right coronary and diagonal branch of the LAD were widely patent. Contrast left ventriculography showed normal LV contractility with an estimated ejection fraction of 70%.

An echocardiogram was performed, but the study was technically limited. There was a suggestion of mild thickening of the aortic valve without significant stenosis and there was a small posterior pericardial effusion. Ambulatory 24-hour ECG recording showed predominantly sinus rhythm with one 8-beat run of supraventricular tachycardia at a rate of 150 bpm. Results of pulmonary function tests are shown in **Table 2**.

The patient had no further episodes of syncope after admission and the procainamide was discontinued. He remained dyspneic at rest and with minimal exertion. A computed tomogram of the chest showed bilateral interstitial disease and diffuse left pleural thickening, most prominently at the apex (**Figures 2 and 3**). A diagnostic procedure was performed.

Table 2. Pulmonary function values

Forced vital capacity	2.21, 48% predicted
Forced expiratory volume in one second	1.64, 54% predicted
Diffusing lung capacity for carbon monoxide	9.7, 45% predicted

Differential diagnosis

As is often the case in medicine, disease manifestation is not always as it initially appears. Patients often present with common symptoms that we try to place in the diagnostic category of "common manifestations of a common disease." In cardiology, that is relatively safe to do, as cardiologists often deal with one of two diseases—acute or chronic coronary syndromes or heart failure. In this case, however, I think another disease is masquerading as heart failure.

The patient is an elderly man with a prior history of coronary artery bypass grafting and recent left carotid endarterectomy who had

been experiencing several months of progressive dyspnea on exertion. A left ventricular ejection fraction measured at the onset of symptoms was 40%. The patient's past medical history includes longstanding hypertension and hypothyroidism, which had been recently diagnosed and treated.

Dyspnea. This is a symptom that has a wide array of etiologies. Subspecialists, including cardiologists, often suspect their organ system as the culprit. The dyspneic patient referred to a cardiologist has heart failure, the same patient referred to a pulmonologist has chronic obstructive airway disease, and that patient referred to an otolaryngologist has upper airway obstruction. To be fair, a symptom such as dyspnea falls across quite a few subspecialty areas.

At this point, I would have liked to have known several additional pieces of information. Did the patient have dyspnea on exertion as his manifestation of angina before surgery? Did he have an abnormal ejection fraction before surgery and did he have any other symptoms consistent with heart failure, such as orthopnea, paroxysmal nocturnal dyspnea, nocturia, ascites, or lower extremity edema? Were there any complications of bypass surgery, especially a perioperative infarction or inadequate revascularization? A perioperative MI could explain the decrease in ejection fraction, which over time could have resulted in systolic dysfunction. The details of the preoperative angiogram and grafts placement allow us to assess the initial technical success of the surgery. Some patients undergo bypass surgery to a vessel that is significantly diseased in the distal portions. A graft to such a vessel may not allow for adequate blood flow, especially during exertion. I would also like to know if the patient is taking adequate doses of thyroid replacement. Both under- and over-repletion of thyroid hormone can exacerbate borderline heart function.

The patient is certainly at risk to suffer both recurrence of angina and the development of heart failure. Because dyspnea is such an ubiquitous symptom, however, it is important to establish supporting evidence for these diagnoses.

Chest pain. The patient continued to have progressive dyspnea on exertion and complained of left-sided chest pain radiating to the neck and back. Although the symptoms to this point are consistent with the presumptive diagnosis of angina and heart failure, it is still essential to take a complete history regarding the nature of the chest pain. In a patient with prior documented coronary disease that required revascularization, it is important to ask if the chest pain is similar to the angina he experienced before the bypass surgery. In patients who have undergone coronary angioplasty, a good way to obtain a history of what angina is like for them is to ask what symptoms they had during balloon inflations. We are not given any further details of the chest pain, such as the duration, similarity of the pain to prior angina, intensity of pain, or whether the pain was pleuritic.



Figure 2. Computed tomogram of the chest showing bilateral interstitial disease.

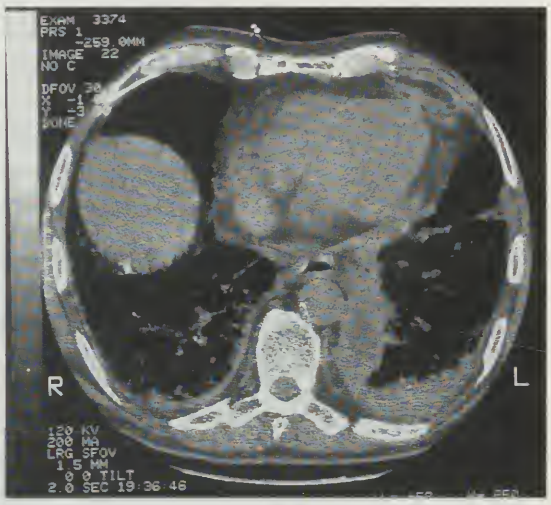


Figure 3. Computed tomogram of the chest showing left pleural thickening.

Atrial fibrillation and syncope. A very common arrhythmia, atrial fibrillation occurred in the patient and he had an episode of syncope. I presume he regained consciousness on his own, as we are told he was treated with procainamide and digoxin. I also presume the atrial fibrillation occurred within the usual rate of less than 200 beats per minute.

Patients with a bypass tract (Wolff-Parkinson-White) may have atrial fibrillation associated with supraphysiologic rates if conduction occurs across the bypass tract, avoid-

ing the normal slowing of conduction by the atrioventricular node. These WPW patients can have life-threatening syncope during episodes of extremely fast atrial fibrillation. In a recent meta-analysis, less than 2% of all cases of syncope were due to atrial fibrillation.[1] Patients at risk for transient hypotension with atrial fibrillation are those with diastolic dysfunction, severe systolic dysfunction, or significant aortic stenosis. One evaluation of our patient's left ventricular function showed only mild systolic dysfunction, certainly not the usual substrate for syncope with atrial fibrillation.

A systolic murmur, described as a systolic ejection murmur, was noted in this patient, but it apparently did not have the usual findings of a late-peaking crescendo-decrescendo murmur radiating to the carotid arteries consistent with the murmur of severe aortic stenosis. New onset atrial fibrillation must also raise the question of a pericardial process. This patient has had open heart surgery, which can lead to post-pericardiotomy syndrome, which is characterized by constrictive physiology leading to elevated right-sided pressures and symptoms of ascites and lower extremity edema. Results of the physical examination given to us would not support the diagnosis of a pericardial process, but a right- and left-sided cardiac catheterization would definitively answer this question. Patients with restrictive cardiomyopathy such as amyloidosis often poorly tolerate atrial fibrillation with rapid ventricular response. A restrictive process such as amyloidosis is certainly a possibility, although the ECG does not show the characteristic low voltage pattern.

Data from the cardiac catheterization and echocardiogram have told us much. There is no substrate for ischemia. Although the right-sided pressures are mildly elevated, there is no evidence for cardiac tamponade or true constrictive/restrictive physiology. The wedge pressure was somewhat elevated, but left ventricular function was above normal; therefore, there is no evidence for systolic dysfunction. There is no evidence of valvular disease. Based on the acquired evidence thus far, we must review the history and results of the physical examination with renewed vigor.

Environmental factors. The patient had a 40-pack year history of smoking and continued to smoke until the time of admission. He worked for several years as a shipfitter and then worked for 32 years as a furnace operator for a foundry. Prior to admission, he lived on a farm.

The patient's work history indicates he had occupational exposure to asbestos and silica. These, of course, are two agents that when inhaled over time cause pulmonary disease. Ships, especially during the 1940s, used large quantities of asbestos for insulation. Their initial building and repair and refitting exposed many workers to asbestos dust. The hold of a ship, where most of the refitting takes place, is basically a closed space that creates a deadly combination of high dust concentration and poor ventilation. Even workers in the ship's hold, such as welders, who were not directly in contact with the asbestos, were at increased risk for asbestos-related disease.

Asbestos has been widely used since 2500 B.C. for a variety of processes from pottery making to manufacturing fire-resistant clothing. It was only in the 1970s that its detrimental health effects became a great concern in the industrialized world. In the United States and Europe, use of asbestos has dropped dramatically, while in Africa and Asian and South American countries it continues to be in demand as a cheap source of insulation in building and housing.

Development of asbestosis depends on length of exposure, type of asbestos fibers inhaled, and length of time the fibers remain in contact with lung tissue. The singular feature of asbestosis is that patients present with dyspnea on exertion. Fine, crisp basal crackles or rales are often present on auscultation. Pulmonary function tests often show reduced lung volumes and decreased diffusion capacity. As with all progressive processes of interstitial lung disease, severe right-sided heart failure can ensue. Radiographs show that fibrosis is more prominent in the lower lobes and subpleural areas. Streaks of fibrosis line the lobar and interlobar septa. There is typically no hilar enlargement. Persons exposed to asbestos may

have a markedly increased risk of lung cancer, particularly adenocarcinoma.[2] They are also at increased risk for benign and malignant mesotheliomas.

Although great efforts have been made to reduce occupational exposure to asbestos, silica exposure remains a problem. Since the time of Hippocrates, metal diggers and miners have been observed to have more symptoms of dyspnea. The chronic form of silicosis usually occurs after 20 years of exposure. It initially manifests as a silicotic islet or nodule, but then may cause hilar node enlargement with characteristic eggshell calcification and upper lode fibrosis. Many patients with documented silicosis remain asymptomatic or minimally symptomatic. Tuberculosis may occur in up to 40% of patients.[2] Silicosis may confer a small increase in the risk for lung cancer.

Given the current patient's occupational exposures and lack of clinical evidence for infection, we need to look for evidence of pneumoconioses and related complications.

Radiographic findings. The films show a bilateral reticulo-nodular pattern involving the lower lobes somewhat more extensively than the upper lobes. There is obvious enlargement and calcification of the hilar lymph nodes. The most markedly abnormal aspect is the large amount of left pleural thickening that is characterized by encasement of the left lung with volume loss. The internal border of the pleural thickening is studded with small nodules. There is no primary tumor identified. Although primary lung tumors can be small and give rise to extensive pleural involvement, this degree of pleural thickening would be most unusual. Although the calcified lymph nodes may suggest such infectious processes as histoplasmosis, coccidiomycosis, or tuberculosis, those diagnoses are unlikely because the patient did not have signs of a febrile illness, productive cough, or arthralgias. He apparently had not lived in areas such as Missouri or the southwest, where systemic mycoses are endemic. Diseases such as sarcoidosis can cause bilateral peritracheal lymph node enlargement and interstitial fibrosis, but the characteristic radiographic pattern does not match that seen in the current patient.

Clinical diagnosis. Given the patient's exposure to asbestos, I think the most likely diagnosis is malignant mesothelioma, which is characterized by pleural thickening with a nodular internal margin. Development of malignant mesothelioma in the population at large is extremely rare. Most seemingly sporadic cases have occult exposure to asbestos. For example, in a Turkish village with a high rate of apparently spontaneous malignant mesothelioma, high levels of an asbestos-like mineral in the atmosphere were subsequently discovered. The rate of malignant mesothelioma is approximately 1% in patients with asbestos exposure. The typical latent period between asbestos exposure and tumor development is 20 to 40 years. Patients with malignant mesothelioma often present with chest pain and shortness of breath. The chest pain is often nonpleuritic and can be referred to the shoulder because of diaphragmatic involvement. Mesothelioma is often associated with large pleural effusions. The current patient had minimal pleural fluid, which is more often associated with the uncommon mesenchymal cell type. Mild pericardial thickening and a moderate pericardial effusion is noted. Mesotheliomas can spread to the pericardium, contralateral pleura, and peritoneum, which may explain the pericardial findings.

In my opinion, the current patient had shortness of breath and chest pain secondary to a malignant mesothelioma. I think the diagnos-

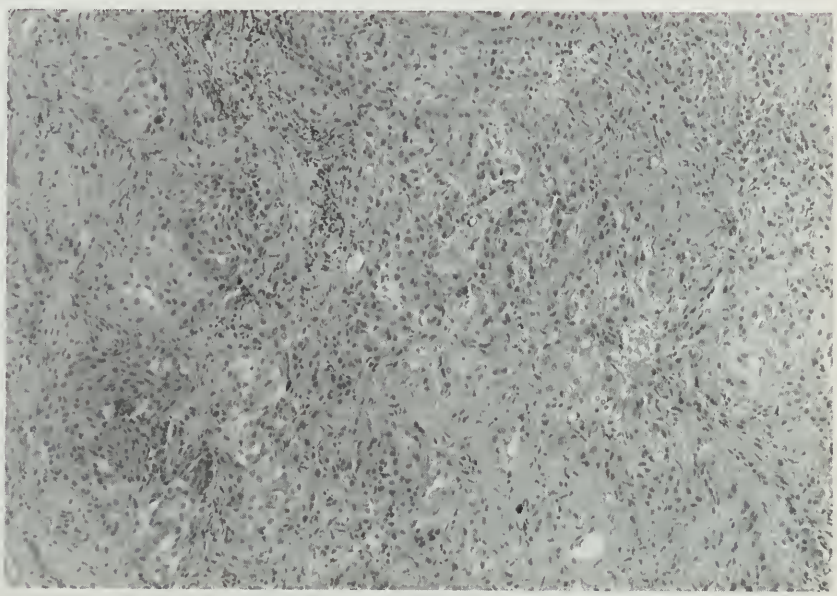


Figure 4. Hematoxylin and eosin staining of pleural tissue.

CASE RECORDS

tic procedure was a thoracoscopy during which multiple pleural biopsy specimens were taken. Although malignant cells can be found in pleural fluid, it may be difficult to distinguish mesothelioma from metastatic adenocarcinomas by that method. In 90% of cases, the diagnosis can be made successfully with thoracoscopy. Multiple pleural biopsies are needed to determine cell type.

In this case, there was also strong evidence for a pneumoconiosis. Judging by the radiographs and length of occupational exposure to silica dust, I conclude that the patient had moderate silicosis/asbestosis. The presence of significantly calcified hilar nodes also makes it likely that he had healed granulomatous disease, probably tuberculosis. His syncope with atrial fibrillation may have been due to diastolic dysfunction or mildly increased pericardial pressures secondary to a reactive pericardial effusion.

Pathologic diagnosis

Several percutaneous left pleural biopsy specimens were obtained without complication; the largest was bright red and the smaller fragments were whitish. Hematoxylin and eosin staining of the tissue showed a malignant tumor involving the pleura that suggested malignant mesothelioma, epithelial type (**Figure 4**). Mucin stains of the material were negative, whereas the alcian blue and cytokeratin stains were positive. Ultrastructural examination showed polygonal cells with abundant microvilli, which were long and slender. The cells were attached to each other by desmosomes and the surrounding matrix was collagenous. Given the clinical, histologic, and cytologic findings, the patient was diagnosed as having malignant mesothelioma and was subsequently discharged to his home with follow-up by his referring physician.

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Radiology Centennial Time Capsule

A sealed time capsule commemorating the first 100 years in radiology has been placed at the American College of Radiology headquarters in Weston, Virginia. Items in the capsule, chosen for their historic, scientific, medical, and scholarly interest, include:

- A letter written in 1896 by x-ray discoverer W.C. Roentgen in which he discusses the costliness of x-ray tubes.
- A 1944 taped interview with William D. Coolidge, inventor of the modern x-ray tube.
- A World War I book on battlefield radiography and a 1944 War Department manual on military roentgenology.
- Print and electronic radiology teaching materials, including a board test of the American College of Radiology and the 1995 CPT code book of the American Medical Association.
- Artifacts such as x-ray films, screens, cassettes, dosimeters, tubes, catheters, stents, injectors, and glass plates.
- Milestone products such as a GE x-ray tube on base, an early 3M rare earth screen, and a Fuji computed radiography imaging plate.

Geriatrics for the Clinician

TREATMENT OF DEPRESSION IN THE ELDERLY

The key to the treatment of depression in the elderly is the *recognition* of depression in the elderly. In our previous article[1] (May 1996), we reviewed the features of major depression, stressing that older persons sometimes do not exhibit the symptoms thought to be characteristic of depression. These standard criteria include depressed mood or loss of interest in activities that usually please the patient (anhedonia) and at least four of these additional symptoms: appetite disturbance; sleep disturbance; fatigue; psychomotor agitation or retardation; feelings of worthlessness, sinfulness, or guilt; difficulty concentrating; and thoughts of death or suicidal ideation. Significant depression may be present, however, in individuals with fewer symptoms.

In the context of a severe life event or chronic medical illness, it is easy to ascribe these symptoms to something else. Physicians and others may think, "I'd be depressed too if that were me." But careful consideration should be given to the diagnosis of major depression when the depression symptoms are present together, even in the setting of physical illness.

Some depressed elderly do not complain about feeling "depressed," so the physician must be alert for atypical presentations. Sleep disturbance, failure to care for oneself, or hopelessness about one's condition can be important clues to depression. Older patients with depression may present with multiple somatic complaints that cannot be explained by somatic conditions, such as chronic pain, dizziness, paresthesias, or weakness. Suspicion of depression should be high among nursing home residents, post-stroke patients, persons in the early stages of dementia, and in those with Parkinson disease. Family members or other care givers may provide a history of a change in behavior and interest that signals the onset of depression.

Evaluation

Because most older adults do not see a mental health specialist, it is important for generalists and other physicians to be able to diagnose depression in older adults. Before beginning treatment, it is important to review carefully the patient's history and physical condition to exclude secondary causes of depression such as concomitant medical illnesses like hypothyroidism or pernicious anemia. Since older adults sometimes take numerous medicines simultaneously (polypharmacy), it is critical to evaluate the possibility that depression is related to the central nervous system effects of a drug (e.g., beta blockers, digoxin, or drugs with anticholinergic side effects). A basic workup for depression in older adults includes a chemistry profile (including renal function), a complete blood count, and an electrocardiogram (if a tricyclic antidepressant is to be given). Other studies might be considered depending on the circumstances. For example, evidence of stroke or dementia might warrant an imaging study of the brain. It is also helpful to obtain the patient's blood pressure and pulse in both the supine and standing positions because many of the medicines used to treat depression may cause orthostatic hypotension.

To reiterate, an important aspect of evaluation is the assessment of the constellation of symptoms that form the diagnostic criteria for depression. Nonpsychiatrists are already comfortable with evaluating many of these symptoms (e.g., sleeplessness). Evaluating other symptoms will often require more directive questioning (such as feelings of worthlessness, or whether one has experienced suicidal ideation).

Treatment

Psychotherapy. Although generalist physicians may decline to use formal psychotherapy, good communication skills with older adults and a willingness to discuss personal difficulties with patients can go a long

way. For example, it helps to ask how they are coping with medical and functional difficulties. Are they worried about maintaining independence? Are they caring for grandchildren or another older adult, with concerns related to their care giver role? Do they have hearing or visual impairment that contributes to a sense of isolation and loneliness?

Sometimes depressed persons do not see alternatives to problems that are obvious to an outsider. Depressed persons also tend to exaggerate their difficulties and minimize their strengths. Older persons occasionally worry about harboring occult cancer or other illness. The conversation with the physician is an opportunity to encourage constructive strategies to deal with these issues.[2] Education about depression and its treatment with medication is an important component of talking to patients with depression. Patients whose physicians discussed the delayed action of antidepressants, the potential side effects, and the use of similar medications in the past are more likely to adhere to therapy.

Table 1. Classes of antidepressants

- selective serotonin reuptake inhibitors (SSRIs)
  - fluoxetine (Prozac)
  - paroxetine (Paxil)
  - sertraline (Zoloft)
- tricyclics (TCAs)
  - amitriptyline (Elavil)
  - desipramine (Norpramin)
  - doxepin (Sinequan)
  - imipramine (Tofranil)
  - nortriptyline (Pamelor)
- monoamine oxidase inhibitors (MAOIs)
  - phenelzine (Nardil)
  - tranylcypromine (Parnate)
- others
  - bupropion (Wellbutrin)
  - nefazodone (Serzone)
  - trazodone (Desyrel)
  - venlafaxine (Effexor)
- psychostimulants
  - dextroamphetamine
  - methylphenidate (Ritalin)

Formal psychotherapy, such as cognitive or behavioral therapy, is effective in the treatment of depression, particularly for relatively well persons in outpatient settings.[3,4]

Pharmacotherapy. The choices of pharmacologic therapy have expanded greatly during the past 5 to 10 years (**Table 1**). The overall efficacy of these drugs is about 60%, but not every drug will work well in every patient.

Rules of thumb can help the physician choose an initial drug (**Table 2**). A history of a favorable response to a particular agent should put that drug high on the list of possible therapies. In addition, prominent symptoms may guide drug therapy because the physician can choose drugs with side effect profiles that "complement" the patient's symptoms. For example, patients with insomnia may benefit from a drug with sedative properties, such as trazodone. On the other hand, clinicians may want to avoid the tricyclic drugs in their very frail elderly patients because of the risk of orthostatic hypotension and anticholinergic side effects.

Response to drug treatment may take 6 to 12 weeks. During that time, the patient should be reassessed frequently for the development of suicidal ideation or other serious symptoms of depression and for intolerable side effects.

Selective serotonin reuptake inhibitors (SSRIs). Because SSRIs are so well tolerated, these drugs have become the first choice for moderate depression in the elderly.[5] Smaller starting doses (one half to one quarter of the usual adult dosage) must be used, however.[6] Side effects of SSRIs include anorexia, insomnia, reduced libido, and, rarely, the serotonin syndrome. The serotonin syndrome is characterized by delirium, hyperreflexia, and ataxia, and can progress

to coma and death if not treated. The initial symptoms of serotonin syndrome may be subtle and misconstrued as a component of depression, such as anxiety, confusion, or agitation.[7] Antidepressants other than SSRIs as well as other medicines have been associated with the serotonin syndrome.

Tricyclic antidepressants (TCAs). Although TCAs have been effective treatments for older depressed patients for many years, tertiary amines (e.g., amitriptyline) are no longer recommended for the elderly because they are very sedating and anticholinergic. Secondary amines (e.g., desipramine, nortriptyline) are better tolerated than tertiary amines and both have well-established therapeutic plasma levels. Failure to achieve a therapeutic level of medication because the physician has not prescribed an adequate dose or because the patient stops taking the medication are major reasons for failure of pharmacotherapy for depression. By checking plasma levels, the physician can assure that the patient is receiving an adequate dose and is adhering to therapy. Although TCAs are usually considered second-line agents today, they may be effective in patients who have not responded to treatment with SSRIs.

The chief side effects of TCAs are orthostatic hypotension and anticholinergic effects. Anticholinergic effects include confusion, dry mouth, constipation, blurred vision, and urinary retention. Because TCAs exert quinidine-like effects on cardiac conduction, it is prudent to obtain a baseline electrocardiogram (ECG) for patients who may be started on a TCA. As the dosage is titrated, the ECG should be monitored for widening of the QRS complex, an effect that precedes atrioventricular block or arrhythmias. Patients with a history of arrhythmias or more than first degree AV block should be treated in consultation with a cardiologist.

Table 2. Guides to the choice of an antidepressant drug

Clues that point toward a particular drug or drug class
• history of a favorable response to a drug during past episodes of depression
• family history of a favorable response
• symptoms that "complement" the drug's side effect profile (e.g., a sedating drug for a patient with insomnia)
Clues that point away from a particular drug or drug class
• history of poorly tolerated side effects
• history of lack of a response
• frail older patients usually should avoid tricyclic agents

It is important to remember that as little as a one-week supply of a TCA can be lethal if taken all at once. Patients should be seen at least weekly at the start of therapy and given only enough antidepressant to last until the next appointment.

Monoamine oxidase inhibitors (MAOIs). Although MAOIs are used less often in older adults than other drugs, they are effective and safe in patients with cardiac conduction problems. MAOIs do cause orthostatic hypotension, however. In addition, patients must adhere to a strict dietary regimen to avoid tyramine-containing foods and certain over-the-counter medicines. These restrictions limit the utility of MAOIs in outpatient practice.

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Other antidepressants. Trazodone lacks anticholinergic effects but can still cause orthostatic hypotension and cardiac arrhythmias. Priapism is a serious side effect of trazodone, but usually occurs at higher doses than used in the elderly. The sedative property of trazodone may be turned to advantage and is sometimes used in combination with SSRIs or TCAs to promote sleep.[8]

Bupropion is sometimes used in older persons who have not responded to therapy with an SSRI or TCA. Bupropion has no anticholinergic or hypotensive effects, but at high doses is associated with generalized seizures.[5]

Nefazodone is a new antidepressant that is chemically related to trazodone. It has been shown effective in clinical trials, but experience in the elderly is too limited to recommend its use at this time.[8] Venlafaxine is another new drug that should be considered a second-line agent because it can cause sustained diastolic hypertension.[5,9]

Psychostimulants. Both methylphenidate and dextroamphetamine have been used successfully to treat depression in patients with multiple medical illnesses. Despite concerns about increasing blood pressure or causing angina in patients with ischemic heart disease, psychostimulants are remarkably safe and effective when used judiciously.[10] Concern about anorectic effects has proven unfounded. As is the case with other antidepressants, small doses must be used when beginning therapy. Improvement in mood usually occurs after just a few days of treatment.

Maintenance therapy. Older adults, like all adult patients, should be treated with an effective dose of an antidepressant for at least six weeks before the drug is considered to have failed. Consultation with a psychiatrist should be sought for patients who do not respond to therapy, who are suicidal, or who have psychotic features (such as hallucinations or delusions). Patients who respond to therapy should be continued at the therapeutic dose for at least 6 to 12 months.[3,4] Relapse is quite common, but is less likely among those who are maintained on the full dose of the antidepressant that alleviated the depression.

Electroconvulsive therapy (ECT). Effective and safe for older persons, ECT, like antidepressant medications, must be maintained if relapse is to be avoided.[4] Cardiovascular effects, such as increased blood pressure, are common but well tolerated. More troublesome are the postictal confusion and memory difficulties that sometimes accompany ECT. Psychiatric consultation for consideration of ECT should be obtained when the patient displays psychotic features or has imminently life-threatening depression (e.g, from severe anorexia).

Recognizing depression in older adults can be difficult, but is critical because depression is eminently treatable. Physicians can help patients express their feelings by asking how the patient is coping with illness. Primary care physicians should become familiar with at least one SSRI and one TCA, as well as selected other agents. By dealing with depression in their practice and working closely with colleagues in psychiatry, physicians in general medicine can diminish the stigma that older adults associate with mental illness. As a continuing source of care for older adults, primary care physicians are well positioned to play a critical role in addressing depression in older adults who often present with a complex constellation of medical and social problems. Those who would like to know more about the treatment of depression in adults, including the elderly, should read the excellent review by Montano.[5]

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A 26-Year-Old Man With Left Anterior Pain

The November 1995 issue of *Maryland Medical Journal* recalling the experiences of state physicians during World War II brought to mind an individual with an unusual diagnosis. A veteran of the African and Sicilian campaigns, he contracted a disease in an endemic area, a site to which present-day travelers also might go.



Figure 1.

The patient was initially seen about five years after the war. His only complaints were a nonproductive cough and mild pain in the left anterior chest. A round homogenous shadow about 9 cm in diameter was seen in the upper part of the left lung on the roentgenogram of the chest (**Figure 1**). Bronchoscopy showed only a mild compression of the left main bronchus about 2 cm below the carina. Fine-needle aspiration of the mass led to the removal of crystal clear fluid in which hooklets of the *Echinococcus granulosis* were found. The cyst was removed by resection of the apical-posterior and anterior segments of the left lung through an anterior approach. The follow-up roentgenogram was normal (**Figure 2**).



Figure 2.

Infestation of man is accidental and ordinarily effected by the ova in the feces of dogs. The Canidae are the common definitive hosts; intermediate hosts are a number of herbivorous animals.

Joseph M. Miller, M.D.

Imaging Case of the Month

Distal Small Bowel Obstruction

Case presentation

A 48-year-old woman presented to the emergency department with complaints of cramping abdominal pain, nausea, and vomiting. Six months earlier, she had had a total abdominal hysterectomy performed. She had been taking no medications and had recovered uneventfully from the surgery.

Imaging findings

An erect abdominal film showed multiple air fluid levels in the upper abdomen along with dilatation of a small bowel loop in the right upper quadrant (**Figure 1**). Films from a small bowel series demonstrated barium throughout the small bowel showing progressive flocculation and dilution as it proceeded distally (**Figures 2 and 3**). Coronal images from a



Figure 1. Erect abdominal radiograph shows air-fluid levels in the upper abdomen (arrows).



Figure 2. A 3-hour film from a small bowel series shows a nasogastric tube and dilated proximal jejunum. The more distal small bowel shows dilution and flocculation of the barium.

magnetic resonance image (MRI) examination (Siemens Magnetom Vision 1.5-T; Erlangen, Germany) showed dilated small bowel loops in the mid and upper abdomen along with a mid-abdominal ill-defined mass (**Figure 4**). There was a transition point in the mid to lower abdomen with focal thickening of a small bowel loop in this region and nondilated small bowel in the right lower quadrant (**Figure 5**).



Figure 3. A 9-hour film from the small bowel series shows progressive dilution and flocculation of the barium in the small bowel.

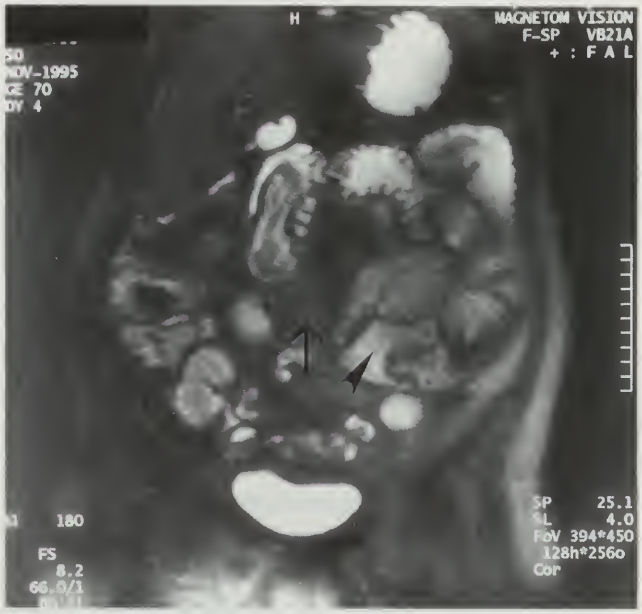


Figure 4. A coronal T2 weighted image from a HASTE magnetic resonance image examination shows dilated, fluid-filled small bowel in the mid and upper abdomen (arrowhead) and an ill-defined mass in the mid abdomen (arrow). The mass was noted to be present in this position on multiple coronal slices.



Figure 5. Coronal magnetic resonance image shows a transition point in the caliber of the small bowel with focal thickening of the bowel wall in this region (arrowhead). Non-dilated small bowel loops are noted in the right lower quadrant (arrow).

Diagnosis

Distal small bowel obstruction caused by lymphoma.

Discussion

The diagnosis of small bowel obstruction can be suggested by the appropriate findings seen on plain film examination of the abdomen. The presence of multiple air fluid levels on erect views along with small bowel dilatation are consistently seen in the presence of a mechanical obstruction.

Confirmation of small bowel obstruction is routinely accomplished with a small bowel series with barium as the contrast agent.[1] Although this examination is usually effective in diagnosing the point of obstruction if present, limitations include the increased time needed for the examination (up to 12 hours) and the inability to visualize the point of obstruction due to flocculation and dilution of the barium in a dilated small bowel.

A barium enema may be used in patients with a distal small bowel obstruction. Reflux of barium through the ileocecal valve is required to demonstrate small bowel obstruction. Ileocecal reflux does not reliably occur with every patient, however, and in its absence, the point of obstruction in the distal small bowel cannot be visualized.

The role of computed tomography (CT) in the evaluation of small bowel obstruction is evolving and recent studies have indicated that CT is superior to plain films for the diagnosis of bowel obstruction.[2,3] Computed tomography can define the site of the obstruction as well as distinguish functional from mechanical obstruction. Although this may be true, CT is more expensive, involves radiation, and requires a lengthy period of time before scanning to allow adequate opacification of the bowel with oral contrast. Based on these limitations, it is doubtful that CT will replace plain film examination in the assessment of small bowel obstruction.

Magnetic resonance imaging has been used rarely in the diagnosis of small bowel obstruction. The limitations of MRI have included long examination times, relatively poor quality images, and the expensive nature of the examination.

A recent case series documents the identification of small bowel obstruction by MRI.[4] The authors used a bowel relaxant (scopolamine 20 mg) and gadolinium and introduced air 1000 to 1200 ml into the bowel through a Foley catheter placed in the rectum. These techniques were combined with conventional spin echo imaging sequences. It is unclear, however, that this approach offers any advantages over other methods of imaging due to its invasive nature and long examination time.

With the development of a T2 weighted fast spin echo MRI sequence with Half Fourier acquisition of data (HASTE), the prospect for MRI evaluation of small bowel obstruction may change considerably. The HASTE sequence allows for fast acquisition times of 1 to 2 seconds per slice and a complete abdominal examination can be accomplished in a single breath hold. No administration of contrast is required and the level of obstruction can be depicted in most patients. Causes of mechanical obstructions such as stricture and adhesions can also be differentiated using the technique. Unlike CT, MRI examination can be performed after a barium small bowel series without adverse effects on the quality of images obtained.

The current patient represents a commonly encountered clinical scenario. The etiology of obstruction was not readily apparent, but was thought to be due to postsurgical adhesions. The small bowel series suggested distal obstruction, but the location could not be accurately determined due to the barium flocculation. Computed tomography was considered but was not obtained because of probable image degradation due to barium-induced artifact. Magnetic resonance imaging was able to localize the point of obstruction and exclude adhesions as the cause of obstruction.

In summary, MRI scanning using newer and faster sequences can provide useful information about the level and etiology of small bowel obstruction. The examination is noninvasive and the short imaging time also makes the technique suitable for a wide range of patients.

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Drs. Beall and Lugo-Olivieri are from the department of radiology and radiological science at The Johns Hopkins Hospital and Dr. Regan is from the department of radiology at Johns Hopkins Bayview Medical Center.

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A legacy of Civil War care: the National Museum of Civil War Medicine

Perhaps the motivation behind the creation of the National Museum of Civil War Medicine can be extrapolated from a small segment of a speech given in 1913 by Dr. S. Weir Mitchell, a well-known physician of the late nineteenth century and a veteran of the "War between the States." In reminiscing about his Civil War experience, he said, "We [physicians] had served faithfully as great a cause as earth has known; we had built novel hospitals, organized an ambulance service as had never before been seen, contributed numberless essays on disease and wounds, and passed again into private life the unremembered, unrewarded servants of duty." Indeed, while countless books and movies have treated the medical aspect of the war with less than favorable fiction and distortions, the real story of the military and civilian care givers has been all but ignored.

The National Museum of Civil War Medicine, located in Frederick, Maryland, has made the telling of this "real story" its main mission. Burt Kummerow, executive director of the museum, left the Maryland Historical Trust in 1994 to help launch the museum and has been instrumental in getting the project off the ground.

"The mission of this museum relates directly to the quote by Walt Whitman that refers to the 'real war' as the hospital part of the drama and the words of Clara Barton which express 'the mercy amidst the mischief and misery that armies strew in their tracks'. This museum tells the story of the tragedy and suffering that took place and the thousands of men and women who stepped up to try to make the situation a little better for all those involved. And finally the museum shows how these care givers changed medicine forever and brought it out of the middle ages and into the modern era," explains Mr. Kummerow.

The museum is the brainchild of Gordon Dammann, D.D.S., a nationally renowned endodontist from Illinois and a Civil War historian and collector. Dr. Dammann began collecting Civil War artifacts in 1971 and has focused much of his collecting on medical artifacts. In 1988, Dr. Dammann and some of his friends who shared his interest in the Civil War decided to create a national museum to house his collection and other donations from around the country and create a center for education on the subject of Civil War medicine.

"Modern medicine has benefited greatly from innovations made during the war, like the formation of the first nursing corps and the field evacuation procedures created by Dr. Jonathan Letterman that are still in use today. The task is to enlighten people to these and other accomplishments and to dispel misconceptions about Civil War medicine, the most common being that anesthesia was not commonly used, which is totally erroneous," says Dr. Dammann.

The museum is now in its formative stage. The new Phase I exhibit opened its doors in June. To walk through the exhibit is to step back in time to experience the war on a very personal level. From the early days of recruitment, when young men were seduced by romantic visions of war and the yearning for adventure, to the hospitals and mourning parlors where soldiers and families suffered alike in emotional despair, the exhibit takes the visitor through every aspect of the war and recreates the environments that were so familiar and commonplace to those who experienced the war firsthand. Through the use of videos, photographs, and recreated scenes using original artifacts, the visitor is immersed in the history of what the soldiers and care givers experienced during the war and how medicine evolved and progressed as a result of this horrific event. One can visit a re-created field hospital and watch on a monitor as a real physician reenacts a medical procedure as it would have been performed in such conditions at that time. The exhibit is basically an outline for a much larger museum to be completed in the next few years.

Although money has at times been scarce, the reservoir of expertise and talent has not. David McLean, senior exhibit designer for the National Park Service and

one of the foremost exhibit designers in the country, was the chief designer of the exhibit. Assisting in the acquisition and placement of furnishings for the project was Bill Brown, a furnishings curator for the National Park Service and a leading expert in military interiors of the nineteenth century. Their goal on the project was to create a first-rate exhibit that would be a genesis for a much larger museum that will cover the issues on a much broader, deeper level. To accomplish this goal, fundraising is crucial. The Maryland Legislature has awarded the National Museum of Civil War Medicine a $1 million matching grant and the museum has until 1998 to match the state funds. The hope is that the new exhibit will stimulate the fundraising necessary to complete the project. The museum certainly has a great deal of interest from the medical community. There are six physicians from around the country currently on the board of directors. Alfred J. Bollet, M.D., an internationally known rheumatologist at Yale University and Civil War historian, is a member of the museum's National Advisory Board, along with Gordon Letterman, M.D., a retired plastic surgeon and grand nephew of Jonathan Letterman, Medical Director of the Union Army of the Potomac.

The museum sponsors a busy schedule of events throughout the year. One of the biggest events this year will be the Fourth Annual Civil War Medicine Conference to be held at Hood College August 2-4. Highlights of the conference include the keynote address by James McPherson, a Pulitzer Prize-winning author and professor of American history at Princeton University. Other highlights of the conference include a tour of Civil War Washington, D.C., and a visit to the Civil War collection at the Armed Forces Institute of Pathology.

Museum officials hope to arouse more support, especially in the medical community in Maryland and throughout the country, for its mission. The Civil War marked a real turning point in the history of medicine and yielded some very important research and discoveries in areas ranging from surgical techniques to the importance of sterilization and proper nutrition. In a recent study, Dr. Alfred Bollet ponders the question, how good or bad was Civil War medicine? He points out that a great deal of what has been written about the subject in the last half of the twentieth century uses analysis based on the knowledge and expectations of the current era, thus skewing the results. The National Museum of Civil War Medicine recreates conditions as they existed at the time of the actual events so that Civil War medicine can be assessed on an objective level.

CAROLINE TATUM PUGH
Ms. Pugh, a graduate student in history at University of Maryland Baltimore County, is a volunteer at the National Museum of Civil War Medicine and a frequent contributor to *Frederick Magazine*. ■

FOR MORE INFORMATION on the National Museum of Civil War Medicine and special events taking place throughout the year at the museum, please write P.O. Box 470, Frederick, Maryland 21705, call 301-695-1864, or fax 301-695-6823.

Edward Joseph Kowalewski, M.D., 1920–1996

Few people whom we encounter in a lifetime can we truly call great, but Edward J. Kowalewski, M.D., fondly known to many as Dr. K, was just such a person. With his recent, sudden passing, we should reflect on the uncommon altruism and myriad accomplishments of this good man's life.

In his 76 years, Dr. K grew from a boy, whose earliest jobs included collecting the coal that had fallen off railroad cars to help heat his family's home in his native Mount Carmel, in Pennsylvania coal country, to a nationally respected physician who surely merits a place among the fathers of family

medicine in America. He attended local schools, matriculated at Gettysburg College, and graduated from Franklin and Marshall College in 1942. Dr. K received his medical degree in 1945 from George Washington University School of Medicine in Washington, D.C., graduating with honors, and as a member of Alpha Omega Alpha, the honorary medical society. The following year, he completed an internship at the George Washington University Hospital.



Edward Joseph Kowalewski, M.D.

Dr. Kowalewski began his medical career as a flight surgeon in the United States Army Air Force, working with the surgical service at the U.S. Army's Valley Forge General Hospital in Pennsylvania. Following his military assignment, and a five-year solo general/family practice in Rothsville, Pennsylvania, Dr. K moved to Akron, Pennsylvania, where he remained until late 1971. There he began a group practice that included not only family medicine, but also obstetrics and surgery.

One of Dr. Kowalewski's finest traits lay in his sincere desire and determination to help others in whatever way he could. While in practice in Lancaster County, he attended victims on the scene of a terrible automobile accident in which the members of an entire family lost their lives. Dr. K drove to Harrisburg still wearing his bloody clothes to show the state legislature firsthand the horrible consequences of allowing undivided lanes of oncoming traffic to travel at high speeds without the protection of highway dividers. His effort resulted in the state highway administration's installation of divider barriers between oncoming lanes of the Pennsylvania Turnpike, an action that ultimately saved countless lives. Federal law eventually followed Pennsylvania's example by requiring such barriers on many major U.S. highways. Dr. K also served as a member of the Governor's Committee on Pennsylvania Health and as president of the Lancaster County Medical Society.

In 1972, Dr. Kowalewski accepted the position of professor and chairman of the department of family medicine at the University of Maryland School of Medicine. During his 18 years in that position, Dr. K touched the lives of thousands of medical students and hundreds of residents. He served as role model, advisor, and advocate for those interested in family medicine, and during his tenure as chairman, the department grew from 3 faculty and 6 residents to 16 faculty and 39 residents. Dr. K instituted the first educational program in geriatric medicine; he served for several years as the president of the medical staff at the John L. Deaton Medical Center in Baltimore and as chief of staff of the University Hospital. On June 30, 1990, Dr. K retired from the university.

Dr. Kowalewski's tireless efforts on behalf of family medicine influenced the lives and practices of many family physicians in Pennsylvania, Maryland, and across the country. From 1951, when he first joined the Pennsylvania Chapter of the American Academy of General Practice (a national organization based in Kansas City, Missouri), and over his many years of active membership, Dr. K served on committees, on the board of directors, as chairman of the board, and as the organization's president in 1969. During his presidential year, the academy changed its name to the American Academy of Family Physicians. Also on the national level, Dr. K served on committees of the American Medical Association, received specialist certification from the American Board of Family Practice, served on the editorial boards of several publications, and received awards and recognitions too numerous to list.

Dr. Kowalewski also made his mark internationally, rising to the presidency of the World Organization of

National Colleges and Academies of Family and General Practice. Many countries around the world with organized movements in family medicine have benefitted from Dr. K's good works.

A final, prime example of Dr. Kowalewski's creative endeavors to assist others lay in his visionary efforts to evaluate and reeducate physicians whose impairments had interfered with the quality of their practice of medicine. He worked with the Maryland licensing body to rehabilitate physicians who needed assistance with various impediments, with the goal of returning these physicians to safe and successful practice That effort gained him national and international recognition as physicians came to the department of family medicine at the university for his assistance. Dr. K continued the effort after his retirement from the university in the Focused Professional Education Program under the auspices of the Physician Rehabilitation Program at Med Chi. The following article summarizes the work of this important program.

As with many residents who trained under Dr. Kowalewski, I (KSF) acknowledge Dr. K's belief in me as the most important factor in my career. His interest went beyond medical matters. No matter how busy, Dr. K always took the time to ask about my wife and children. He reminded busy physicians about the importance of family, both by his words and his deeds. Dr. K was never reticent about his delight in and devotion to his wife, Regina, his son and two daughters, and his lively brood of grandchildren.

At his funeral at St. John the Evangelist Roman Catholic Church in Severna Park, where he had a long and active membership, Dr. Kowalewski's eldest granddaughter, Joan, placed a basket full of small stones at the back of the church. She asked those attending to take a stone and keep it as a reminder of her wise and caring grandfather and what his life on earth meant to each person.

At the close of the service, as those present filed out into the bright April morning, many were thankful for the opportunity to take a stone from Joan's basket so as to hold a piece of this important man's life with them always. Still more of us have the special good fortune to carry a piece of this generous, jovial man within ourselves. Dr. K will be missed.

C. Earl Hill, M.D.
Kevin S. Ferentz, M.D. ■

Focused professional education: a response to physicians' individual educational needs

Edward J. Kowalewski, M.D., Carmine M. Valente, Ph.D., and Cora H. Teter, M.S.

In 1988, the American Medical Association House of Delegates recommended that state medical societies establish education programs to assist physicians with identified cognitive and clinical deficits. Such a program already existed at the University of Maryland. In 1991, Focused Professional Education moved to Med Chi, where it provided education focused on individual physicians' needs until the senior author, Edward J. Kowalewski, M.D., retired in 1994. At the time this paper was written (1992), Dr. Kowalewski was chairperson, Dr. Valente was deputy executive director, and Ms. Teter was project coordinator of Focused Professional Education.

Two case studies

Case 1. A patient sought treatment from a physician practicing in a lower income Baltimore neighborhood. Dr. A prescribed a drug containing codeine for the patient's upper respiratory infection. Some days later, the patient returned seeking medication for his nerves; when Dr. A refused, the patient vowed to "get" Dr. A.

The patient's revenge came in the form of a complaint brought by the director of a drug treatment program to the Board of Physician Quality Assurance (BPQA). The complaint accused Dr. A of prescribing an opiate to a known methadone patient. Although a peer review committee investigation and interview failed to substantiate the drug treatment director's complaint of inappropriate prescribing, an unrelated problem surfaced during the review. Finding Dr. A's records so illegible that it could not judge whether he gave appropriate care, the committee recommended a practice review. The review resulted in a letter from the BPQA urging Dr. A to seek education in medical record keeping before a second review of his practice. Dr. A sought help from Focused Professional Education (FPE). After completing a medical records course, Dr. A satisfactorily passed the second review.

Case 2. A Baltimore physician, because of his family situation and serious personal health problems, absented himself from active practice for 10 years. When Dr. T's circumstances allowed him to return to medicine, he turned to the FPE program for help in updating his knowledge and skills. Dr. T completed a year-long course at the University of Maryland School of Medicine with the highest score in his class. He located a residency program as a second step toward returning with confidence to full-time practice.

Program origin

The program that helped these physicians began in the 1970s in the department of family medicine at the University of Maryland School of Medicine. It predated by more than a decade the policy adopted by the American Medical Association House of Delegates at its December 1988 meeting. At that meeting, the Council on Medical Education submitted a report citing the need for programs to address identified individual educational deficits of physicians.[1] Based on that report, the AMA House of Delegates recommended that state and county medical societies respond to the needs of physicians for education to enhance their clinical competence.[2]

In March 1991, the education program moved from the University of Maryland to Med Chi where, as Focused Professional Education, it continued to help physicians to identify and overcome deficiencies in their practices, to preserve their licenses, and to improve patient care. Programs similar to FPE were established at McMasters University, Ontario, Canada, and at the University of Wisconsin/Medical College of Wisconsin.[3,4]

The AMA House of Delegates further recommended that medical societies should cooperate with state licensing agencies in providing education programs.[2] Dr. A's participation in Med Chi's FPE as a result of peer review and an interim letter of education from the BPQA is one example of this recommended cooperation. The AMA House of Delegates also recognized the concept that physicians might refer themselves for focused education; by this route Dr. T entered FPE.[2]

Table 1. Referral sources

Percentage	Source
38	Commission on Medical Discipline Board of Physician Quality Assurance
2	Attorney General's office
10	Med Chi Peer Review Baltimore City Medical Society Delmarva Foundation
12	Physician Rehabilitation Hospital Quality Review another physician
20	Florida Impaired Physicians Program New Jersey Board of Medical Examiners North Carolina Board of Medical Examiners Rhode Island Medical Society West Virginia Medical Institute
18	Physician's attorney Self-referral

Referral

The process began with a referral that if accepted led to an evaluation. The resulting report made recommendations for education. After the physician completed the education, a final evaluation took place.

A review of records showed that the program received referrals from 16 sources (**Table 1**). Before

1991, the program received 96 referrals; between 1991 and 1994, it received 38 referrals.

Not all referrals led to evaluations and educational programs: the referral source could withdraw its request and pursue some other avenue to deal with a physician's problem; the physician could decide not to go through with the evaluation in favor of some other option such as retirement; the committee chairperson could decline to accept a referral if education obviously would not address a physician's problem.

Demographics of participating physicians

Of the cases reviewed, 134 physicians were accepted into the program. Of these, 59% held current medical licenses when they entered the program; the remaining 41% had licenses either suspended, revoked, lapsed, or not in force. Although FPE received referrals from agencies with the power to grant, suspend, or revoke medical licenses, the program dealt only in education; it had no power in itself to act against a physician's legal right to practice medicine.

Although 56% of physicians entering the program named one of three areas of primary care as their specialty (general medicine, family medicine, and internal medicine), only 25% of Med Chi members and 23% of Maryland physicians were in these specialties.[5] The focused education program at McMasters University reported a similarly high proportion of participating physicians in primary care practice.[6] Sixteen other specialties accounted for the remaining 44%.

At the time of referral, 20% of all participating physicians were board certified in their specialty, compared with 63% of all practicing physicians in Maryland board certified in some specialty.[7] The high percent of physicians who named general medicine as their specialty could account for a large portion of the physicians not board certified in any specialty. The Canadian program also reported that lack of board certification was a risk factor for a lower level of competence.[6]

The review found a surprisingly high percentage (63%) of the participating physicians in solo practice. A study of characteristics of physicians registering for short-term courses, conducted by the University of Calgary's Office of Graduate Clinical Continuing Education in 1987, concluded that the isolation of physicians whose solo practice removed them from regular contact with organized medicine contributed to the risk of decreased medical competence.[3] That finding supports one possible explanation for the high percentage of solo practitioners in the program: those deficits in knowledge and skill that focused education sought to remedy may result from the isolation a physician experiences in solo practice.

The program served physicians trained not only in the United States but also in 16 foreign countries. The 25% of foreign-trained physicians in focused education matched exactly the percentage of foreign-trained physicians in Maryland.[5]

Initial evaluation

From the program's beginning through 1994, 64 initial evaluations took place. The committee chairperson formed a team of three to four physicians, taking into consideration a number of factors. The physicians who served on the evaluation team generally practiced in the same specialty as the participating physician or in a closely related specialty. The chairperson considered the participating physician's type of practice (e.g., office based, hospital based, HMO, partnership, specialty group, solo practice). He tried to include on the team a physician in the same type of practice. At times the participating physician entered the program with a personal health problem, and the chairperson considered that in forming a team.

The initial evaluation team prepared for the interview by reading background material on the participating physician. Peer review reports, hospital quality assurance reports, charging documents, and medical records gave insight into the problems that brought the physician to FPE. To understand the physician's interpretation of past problems, the team questioned him or her about background material.

Discussions of hypothetical cases typical to the physician's area of practice formed the major portion of the initial evaluation. Each physician on the team prepared cases in advance and presented to the participating physician the patients' physical characteristics

and symptoms. This method of evaluation closely resembles chart stimulated recall, which requires physicians to describe and justify their actions in a given situation. As with chart stimulated recall, discussion of hypothetical cases readily uncovers weaknesses in cognitive and clinical skills. However, unlike chart stimulated recall, which is based on actual patient records, the hypothetical but typical cases presented by the evaluators did not require disclosure of confidential patient records from the physician's practice.[3,8] The initial evaluation closed with a discussion of the participating physician's plans for the future, attitude toward pursuing focused educational opportunities, and vision of future practice.

Report and recommendations

In a 1981 article on the ability of education to change physician behavior, John M. Eisenberg, M.D.,[9] wrote, "The efficacy of educational programs may be influenced by the ability of the educators to address the needs of physicians. It is likely that careful analysis of the strengths and weaknesses of physicians before the educational program will help focus the intervention and may improve its effectiveness." In keeping with that thesis, in the week following the interview, each physician on the team wrote a report. The reports supplied the material for a compiled initial evaluation report that discussed in detail the participating physician's strengths and weaknesses. This centering on individual needs, the focused aspect of FPE, provided a base for the most effective course of education.

The report cited the physician's needs, sometimes in one area but more often in a number of areas. In almost half the cases, the evaluations showed deficits in cognitive skills and in keeping adequate medical records (**Table 2**).

The initial evaluation report concluded with its most important part, the team's recommendations for education. The education could take a number of forms; 28% of the reports recommended a long-term course of one or more years of residency or medical school, and 44% recommended short-term education, from a 1-week intensive course to 1 day per week for a year. In the remaining 28% of cases, there were no specific recommendations for education. Sometimes the evaluation team found extenuating circumstance that would make education impractical, or it uncovered problems for which education would not provide a solution (e.g., problems with behavior and attitude, poor physical or mental health, alcohol or drug involvement, or unorthodox methods of practicing medicine).

Focused education

When both the referring source and the participating physician agreed to pursue the recommendation in the initial evaluation report, FPE identified the education. The program worked to maintain a close association with the University of Maryland School of Medicine as a resource for education. In addition, the program sought to establish ties with area hospitals to provide opportunities for clinical instruction.

Final evaluation

The same physicians who formed the initial evaluation team or physicians who were involved in the education served on the final evaluation team. The report resulting from a final evaluation assessed how the physician's knowledge and practice changed as a result of the education. Of the participating physicians for whom the evaluation team recommended education, 62% successfully completed their recommended educational courses.

The program recognized that success has many methods of measurement, including improved attitude, a more relaxed practice free from the stress of defensiveness, and a better understanding of current standards of

Table 2. Frequency of deficiencies cited in reports*

Percent	Deficiency noted
77	Cognitive
75	Medical records
23	Skills
41	Professional isolation
25	Background/CME
9	Practice management
9	Prescribing

** Most reports cite more than one deficiency.*

care and a determination to practice according to them. Physicians succeeded if, as a result of focused education, they developed a study discipline and established regular contact with other physicians and health care facilities to keep their knowledge and skills current.

Conclusion

The public has the right to expect knowledgeable, competent care from all physicians. By providing appropriate continuing medical education for all physicians and effective remedial education for physicians in need, FPE responded to this expectation. Those involved with the program believed that in its service to physicians in Maryland and as a resource for physicians outside the state, FPE made a significant contribution to quality medical care.

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Eat your vegetables—and check your references!

For many years, Dr. O. Uplavici was cited for work on dysentery. Although Dr. Uplavici was "born" in 1887 and "died" in 1938, it is doubtful that anyone actually ever met him (or her). This was because the title of a Czech language article—"O úplavici," or "On dysentery"—was mistaken for the author's name. The misunderstanding was finally brought to light—and Dr. Uplavici was gently but finally laid to rest—in 1938.[1]

A reference list is a promise from the author to the reader that the statements made in regard to another author's work are accurate, and that the reader can find the information where the author states it is.[2,3] Removing all doubt, an editorial in *Anesthesiology* flatly stated: "The authors' responsibilities are absolutely clear: first, to consult the original paper; second, to quote the original material correctly and in context; and third, to present the bibliographic reference accurately."[4] Authors are also responsible for presenting the references in conformity with the journal's style.

Some tips on compiling and writing references:

- In medicine, never say never. That being said, never accept a secondary source without checking it out yourself![5] Let Dr. Uplavici rest in peace.
- Keep a photocopy of at least the first page of each reference. Make sure that this page has all the needed details to write a complete citation, such as inclusive page numbers and year of publication. For example, a book's title page often lacks the year of publication, which is on the copyright page.
- Check the instructions to authors for guidelines about references. How are the references to be ordered? In order of mention, such as in *MMJ*? Or by name/year? If there are multiple authors, write out all their names, or at least as many as the instructions require. Don't write out only

the first author followed by "et al", unless specifically instructed.

- If the instructions call for citations numbered in order of mention, don't start numbering until the writing is done. Meanwhile, put author name and year of publication in your drafts. Later, after the writing is done, replace the names/years with the appropriate numbers. Otherwise, the number order can easily get out of whack if you have to add or delete references. Even so, ensuring that the numbers refer to the appropriate references can be nerve-wracking indeed!
- Use the correct abbreviation for references to journals. Many journals, including *MMJ*, use *Index Medicus* abbreviations. Don't guess. A medical librarian can show you the *Index Medicus* guide. Careful! The *Maryland Medical Journal* has MMJ on its cover. But *Md Med J* is the *Index Medicus* abbreviation.
- Check your manuscript during later stages when it comes back to you from the editor, such as the copyedited version, and the galley proofs that are about to be printed.

Now—eat your vegetables—and check your references!

Michael S. Altus, Ph.D.
Dr. Altus, a member of the board of the Mid-Atlantic Chapter of the American Medical Writers Association, is a freelance medical writer and editor. He lives in Baltimore.

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TV Doctors And Viewers' Perceptions Of Medicine

In a provocative essay entitled "Television entertainment and the US health-care debate,"[1] Joseph Turow, Ph.D., a professor of communication at the Annenberg School for Communication at the University of Pennsylvania, argues persuasively that popular images of medicine in television entertainment have important political significance. He claims that every week, TV series such as *ER, Chicago Hope, Diagnosis: Murder, and Dr. Quinn: Medicine Woman* portray ideas about "the medical system's authority to define, prevent, and treat illness." Dr. Turow states:

- "... the images of professional health care in doctor shows have been out of step with the visions that corporate and government health-policy makers have held during much of the late 20th century."
- "... the behind-the-scenes world that viewers see on TV may lead them to expect physicians to have more power over health care than they actually have."
- "... all health-care workers should be aware that their patients often come to their offices with years of dramatic and comedic stories about the medical system swimming in their heads."

1. *Lancet* 1996;347:1240–1243.

STRAIGHT Forward

INFORMATION FOR AUTHORS

Straight Forward, a quarterly publication by the Physician Rehabilitation Committee of the Medical and Chirurgical Faculty of Maryland, informs Maryland physicians and other health care providers of developments in the areas of substance abuse, mental health, impairment, and recovery.

To accomplish this goal, the editorial consultants seek original informative or philosophical manuscripts on addiction, recovery, practice/patient management, and mental health. Calls for manuscripts on specific subjects will appear in future *Straight Forward* issues.

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MARYLAND MEDICAL HISTORY

Marcia Noyes' correspondence: a life and profession reflected in letters



As many *Maryland Medical Journal* readers know, 1996 is the one hundredth anniversary of Marcia Noyes' employment as Med Chi librarian. Besides managing the library, Marcia served as de facto executive director of the society, initially with the aid of only a janitor. Marcia remained at Med Chi just short of fifty years, living in an upstairs apartment so as to be on call twenty-four hours a day.[1] During this remarkable tenure, library holdings increased from 7,700 volumes to 65,000, Med Chi membership grew from 470 to 1,900, and the staff increased to 10.[2] Marcia attended countless meetings, directed a long battle for funds to erect the present building, and developed her own classification system for the library's books.[1]

By all accounts, Marcia Noyes was a modest, unassuming woman who often insisted she had only a small part in the success of any project in which she was involved. She seemed to prefer working quietly and methodically behind the scenes, letting others provide the "flash." However, a look at the Noyes correspondence files in Med Chi's archives reveals the warmth and respect physicians, librarians, and others felt for her.

One of Marcia's most faithful correspondents was Sir William Osler. This was only natural, since Osler personally hired Marcia during his tenure as Med Chi president. He provided an informal medical education for the new librarian, donated numerous books, led the drive for a new building,[1] and personally paid the expenses for Marcia to attend several library conferences.[2] During their decade of working closely together, they also became fast friends. When Osler traveled abroad he was constantly on the lookout for books the library might need.

During a trip to Europe in 1901, Osler wrote:

> I had such hard work to get away—that confounded textbook [probably the fourth edition of his *Principles and Practice of Medicine*.[3]] kept me tight to the very last moment. . . . I have some treasures for the Library. Muller & Co. of Amsterdam had a loft full of fine old books which I looked over. . . . Let me know if there is anything special wanted from Germany. . . . I have forgotten all about medicine & doctors & my sole ambition in life now is to reduce my score at golf.[2]

Even after he moved to England to become Regius Professor of Medicine at Oxford in 1905,[3] Osler did not forget the library. While in Rome in 1909, he trumpeted:

> I could not resist sending the Library a first edition of the *de Humani corporis fabrica*, the great anatomy of Vesalius. . . . Ask the Library Committee to accept it from me—for the Frick collection—and when you put the volume on the shelves notice the shiver of conscious joy which will pass through all the 16th & 17th century tomes when they realize that one of the two greatest printed medical books has joined their company.[2]

As usual, Osler ended the letter on a personal note. "My greetings to Dr. Ruhrah & to Dr. Cordell & I hope your faithful man Friday is still with you."[2] The last reference was to Gustave "Gus" Orville Caution, the janitor who worked alongside Marcia during her entire tenure.[4]

Osler also continued to take a keen interest in plans for the new building and Med Chi finances. After an appropriation for building funds failed to pass in the state legislature in 1908, he wrote, "What an aggravation to have the appropriation cut one half! Isn't it distressing? Still, the greater the discouragement the greater should be the effort, and after all when one thinks what the library was when your feminine feebleness took hold of it and what it is now, we have a great deal to be thankful for." Responding to news that his portrait in the Med Chi offices had been moved, Osler joked, "I wondered why I should be feeling and looking so much better lately, but it is no doubt the telepathic influence of the improvement which corner has made in the portrait."[2]

In a letter written several months before the 1909 dedication of the new building, Osler's pride was evident. "I am looking forward with such pleasure (and pride!) to the visit. It does not seem quite proper to have a room dedicated to me while still alive."[2] The hall named after Osler is still used for large meetings today.

On Christmas Day, 1916, Osler wrote wistfully, "Dear Sister Marcia, I wish I could spend an afternoon with you in the Library—seeing all the changes & improvements. What a great work you have done for us! I wonder whether you appreciate it. I really believe the doctors do! Think of the old days—of such small things—but we had hope." A note in the margins of this letter, in Marcia's hand, indicates the letter "set the ball rolling" for the Osler Testimonial Fund.[2] In 1917, Osler's friends and colleagues gave $10,000 to Med Chi to buy books and maintain Osler Hall.[4]

Marcia and Dr. Osler also shared a personal friendship. In 1908, Marcia's sister Kitty, who lived with her in the Med Chi building, died. Many of Osler's letters had concluded with regards to Kitty and he now wrote, "I am so sorry to hear of the death of your sister—and after such a long & brave struggle. You will be sad at heart, I know & I write to say how much I sympathize with you in your loss."[2] In 1917, it was Marcia's turn to write a sympathy note. Osler's only son, Revere, was killed in World War I while serving in the artillery.[3] Osler replied:

> Dear Ste. Marcia. Thanks for your kind letter of sympathy. It has been a heavy blow. You would have loved the dear laddie, enthusiasm for his old books & his keeness in all that was best in literature. This makes it doubly hard for me, as there were so many interests in common. He had begun to collect a very interesting library in English literature. I knew this would happen—a man could not expect to have as much in life as I have been given without a heavy blow before the end came.[2]

Preserved with the letter is the envelope, complete with a large label indicating it was opened and cleared by the censor.

> Osler was, of course, not the only physician Marcia kept in contact with. Med Chi members traveling in Europe, such as Henry Barton Jacobs, sent letters back and forth regarding book purchases for the library. A letter from William Halstead described in detail a bouquet of flowers Marcia sent, apparently when he was ill.[2] These may very well have been picked from the gardens she planted around the Med Chi building.[1] Several letters from William Frick, who gave the library a substantial sum in memory of his brother Dr. Charles Frick, showed his regard for Marcia. In 1939, she exchanged letters with Norman Gwyn, a former Med Chi member living in Toronto. He salvaged some wood from Osler's birthplace after it burned

> down and had part of it made into a gavel for the Osler Society in New York. Marcia requested a piece of the wood and received enough to make gavels for Med Chi and Johns Hopkins.[2] No matter the occasion, Marcia seemed to know just what to say and often went out of her way to provide some small piece of information.

Many physicians and others scholars contacted Marcia for help with research related to medicine in Maryland. The files contain numerous letters from Harvey Cushing, a Hopkins surgeon who later moved to Yale University. During the 1920s and 1930s, while working on *The Life of Sir William Osler* and other projects,[3] Cushing wrote many times. Marcia often sent him information and packages of Osler material, but Cushing shared his resources as well. In 1920, he wrote:

> What a pity that you did not keep every scrap that [Osler] wrote to the Library. I want to make a good deal out of his relation to and generosity toward libraries. . . . I shall of course keep you in mind for things which will be of use in Osler Hall for as I started the collection myself I have it much at heart and think you ought to get as complete a set of things as they have anywhere.[2]

This was not the only time Cushing looked out for Marcia. Some fifteen years earlier, he had apparently been instrumental in arranging Marcia's attendance at the American Medical Association's annual meeting.

Another large category of correspondence in the Noyes files is letters to and from other librarians. Marcia probably became acquainted with many of these people through the Medical Library Association (MLA). In 1898, with Osler's encouragement and financial help, Marcia attended the founding meeting in Philadelphia, along with eight other charter members. One of the most important functions of MLA was the Exchange, a clearinghouse where members could send duplicate or unwanted journals and, in turn, request items to replace lost or missing issues for their library. Marcia managed the Exchange from 1900 until 1904,[2] when lack of space at Med Chi forced her to request that operations be moved elsewhere. Over the next several years, the Exchange apparently was mismanaged and members became increasingly disgruntled.[1]

In 1908, Marcia received a letter from Ada Bunnell, secretary of MLA:

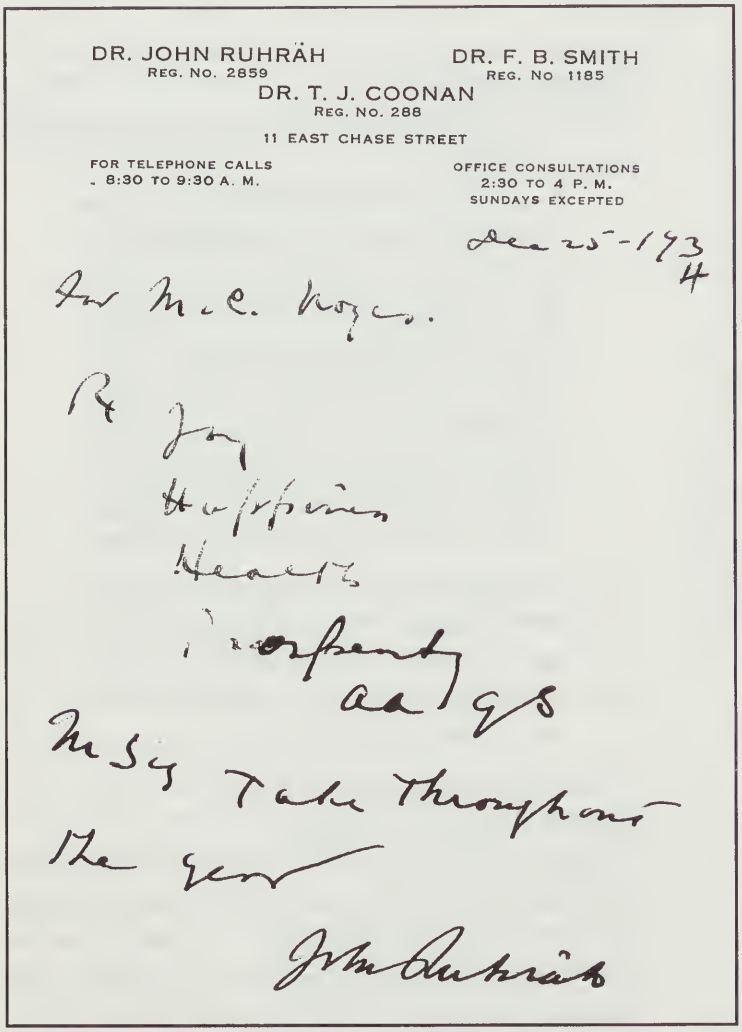
> I have not received an official notice of the action of the Executive committee concerning the Exchange but understand they advise that it be given up unless more satisfactory financial arrangements can be made. . . . The amount of it all is that there has been so much dissatisfaction with the management that many libraries have refused to pay their dues and of course the Exchange can not be managed without money. It looks to me as though the Association would go to pieces unless some one will offer to take the Exchange and manage it properly so that members will again have some confidence in it. Have you any suggestions to offer?[2]

There is no copy of Marcia's reply, but from 1909 to 1926 she again managed the Exchange.

Marcia's "partner" for much of her MLA work was John Ruhrah, M.D. He served as MLA treasurer during most of the time Marcia managed the Exchange and the two of them coedited the first fifteen volumes of the *Bulletin of the Medical Library Association* from 1911 to 1926. Ruhrah was also president of MLA and served as program chairperson when the association met in Baltimore in 1934. During 1933-1934, Marcia was MLA president, the first woman and the first nonphysician to hold the office. During her term, the association was incorporated and a seal designed.[2]

When Dr. Ruhrah died in 1935, MLA president Charles Frankenberger wrote to Marcia:

> You folks in Baltimore and the medical profession in general has lost one of its shining lights and our Association, one of its most interested and active members. . . . I would like to have you serve as Chairman of a Committee to prepare a suitable letter of resolution to be sent in the name of our Association to his family and be incorporated with an obituary notice for publication in our "Bulletin". . . .[2]



DR. JOHN RUHRÄH
REG. NO. 2859

DR. F. B. SMITH
REG. NO 1185

DR. T. J. COONAN
REG. NO. 288

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8:30 TO 9:30 A. M.

OFFICE CONSULTATIONS
2:30 TO 4 P. M.
SUNDAYS EXCEPTED

Dec 25-1934

For M. C. Rogers.

℞

The death of Dr. Ruhrah was also a blow to Med Chi. He had served as president, chairman of the Library Committee, and in various other capacities.[4] A staunch supporter of the library, he had been Marcia's first reader[1] and shared her interest in medical history. In his will he left a large endowment to the library, as well as his book collection and some furnishings.[4]

Since Marcia and Dr. Ruhrah worked together so closely for so long, there is little correspondence between them. However, the archives contain a short "prescription" written on a notepaper with Dr. Ruhrah's letterhead.

Another of Marcia's frequent correspondents had MLA and Osler connections. William W. Francis was a nephew of Osler and Librarian of the Osler Collection at McGill University, Osler's alma mater. When the Med Chi Library celebrated its centennial in 1930, Francis sent a photograph of a page from the autographed first draft of Osler's *Bibliotheca Osleriana*. This paragraph spoke of his fondness for Med Chi and the debt he felt was owed to Marcia.

"Billy F." was apparently quite a character and almost all of his personal correspondence with Marcia was humorous, filled with inside jokes. In 1937, he wrote:

> Dear Sister Marcia, ... Big minds, like mine and Popsy's, know that unanswered letters answer themselves. . . . I just took Sir Philip Sidney's advice, "Look in thy heart and write." I'm trying to do the same for my horribly imminent Pestilential Address, but whenever I sit down to it I get an attack of compositorial heart-block. . . . Yours ever, Billy F. WF/WF, but signed with W. O.'s pen, extracted from the showcase for the purpose.[2]

The address Francis referred to was his presidential address at the upcoming MLA meeting.[2]

In the 1940s, as Marcia's health was deteriorating and her career coming to a close, Med Chi and MLA members alike began to understand her impact. Med Chi leaders planned a grand fiftieth anniversary/retirement celebration as part of the 1946 annual meeting, which they tried to keep secret from Marcia. Needless to say, this attempt failed. Marcia seemed a bit put out with the idea initially, but then joined in the planning, perhaps to insure the event remained low key.[1] Invitations went out to Med Chi physicians, medical librarians throughout the country, former staff members, and Marcia's personal friends. Many of the acceptances and regrets include confirmation of Marcia's contributions to Maryland medicine and medical librarianship.

Janet Doe, librarian at the New York Academy of Medicine, wrote:

> You have done so much for all of us in medical libraries that we cannot begin to express our debt. When I first started in at the Rockefeller Institute in 1923, "1211 Cathedral Street" was a name to conjure with! And the reality behind it was *you*. One of the pioneers who started our profession toddling along its upward path, you've seen it grow to

> maturity. Your guiding hand, too, was one of those which fashioned the M.L.A. into a force to be reckoned with in the library world. Your energy, keen judgment, and grasp of the new problems have been decisive factors in the growth of our Association and of our ideas of medical librarianship.[2]

Doe had a good sense of Marcia's historic place; twenty years later, MLA inaugurated the Janet Doe Lecture on the history or philosophy of health sciences librarianship.[6] MLA's highest award, recognizing "an individual whose career has resulted in lasting, prominent contributions to health sciences librarianship," is the Marcia C. Noyes Award,[7] established in 1948.[1]

W. W. Francis was to speak at Marcia's anniversary celebration, representing MLA. Unfortunately, just weeks before the event, he suffered a heart attack and was unable to come. Mary Louise Marshall, librarian at Tulane University Medical School and MLA president through the war years, agreed to take his place. Pauline Duffield, hand-picked by Marcia as her successor, had worked under Marshall. Though past eighty, Harry Friedenwald, M.D., a fifty-year member of the library committee and one of only thirteen Med Chi members remaining from 1896, also addressed the assembly.

Less than a year before, Dr. Friedenwald had made what was apparently by that time a rare trip to the library, only to find Marcia away. He wrote a thank-you note for some information she had found for him, continuing with more personal concerns:

> I learn with great regret that you have not been well. Trying to look after the medical profession for all these years has been no small undertaking. I too look back with great pleasure to the days when I came frequently into the Library & when we worked together in getting up meetings & lots of interesting discussions. It was a real club! I like to think of those good old days when the Book & Journal Club was thriving and we were proud of having grown out of the home on Hamilton Terrace and into that handsome building on Cathedral St.![2]

Friedenwald and Marcia must both have sensed they were the last of that "club."

Marcia spent the final months of her employment tying up lose ends and trying to ensure Med Chi business continued without her. Items of concern included creating an executive director position, finding assistants for Miss Duffield, making sure the endowed funds were properly organized, and receiving visiting librarians. The Med Chi leadership had agreed that Marcia could stay in her fourth-floor apartment for as long as she liked. However, as Marcia's health continued to fail, she entered Eudowood Sanatorium. In September, Albert Chatard, M.D., Med Chi treasurer and the primary planner of the anniversary celebration, wrote: "I am enclosing your monthly a little ahead of time so it will meet you there in case you have any expenses to pay when you first arrive. I also want to let you know and I am sure the members of the Faculty will agree with me, that any additional expense you have at Eudowood will be gladly met by the Faculty."[2]

Marcia died November 24, 1946, almost exactly fifty years from her date of employment.[1]

Perhaps the most poignant item in the Noyes files is a Western Union telegram, received at Med Chi November 25, addressed to the Librarian: "Well done good and faithful Sister Marcia farewell to Osler's earliest from his latest librarian—Francis."[2]

SUSAN E. HARMAN, M.S.L.S.
Ms. Harman is associate librarian at Med Chi.

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An Unquiet Mind:A Memoir of Moods and Madness.
Kay Redfield Jamison, Ph.D. New York, NY: Alfred A. Knopf; 1995. 224 pages. $22.00

We read firsthand accounts of a patient's illness to learn several things: what is the experience of illness, what helped in treatment, and how did the patient get along with his or her physician? We professionals may read a memoir of another professional person's experience with illness to find out if he or she copes better than we think we would. We may approach a memoir of a mental health professional person's emotional life and mental illness with special curiosity.

Beyond this, in reading personal accounts of illness, we can learn about the patient's experience of illness and its effects on a life, and the experiences of encounters with us in our attempts to provide treatment and care.

Kay Redfield Jamison, Ph.D., a professor of psychiatry at The Johns Hopkins University School of Medicine and an authority on manic-depressive illness, has published her own experiences as a person with manic-depressive illness. This is a well-written account that balances objective and scientific reports with personal, subjective, first-hand experience. We learn of the thrills as well as the pain, the costs of clouded thinking and poor judgment.

Dr Jamison opens the book with an account of a manic episode, calling herself "manic beyond recognition." I found the discussion following this beginning more as lecture than a personal account. Then the book takes off, in many senses: her account is more personal, she brings the reader on her flights of mania and fancy, and she takes off her privacy, her armor, her white coat which we wear to distinguish ourselves from the afflicted patients we work with and pray we will not become.

Her descriptions are most revealing: "a light, lovely tincture of true mania." "I was used to my mind being my best friend." During a year at St. Andrews University, she met a professor who was a fellow sufferer with depression: "We felt our depressions more complicated and existentially based than they actually were." She stated that then (in the early 1960s) "there were no words or disease names or concepts that could give meaning." This underlines the feelings of isolation that many people have when first stricken with an illness.

Dr Jamison goes on to discuss her denial and ignorance as a major factor in keeping her illness a secret from colleagues and friends. This is often a critical factor, and she also helps us understand how much fun/pleasure people can find during the manic periods.

She tells of a manic break, with vivid inner views of the experience. She also tells an outer view, of her brother's support during the devastating period when bills came in after a spending spree. Her illness worsened, and she experienced hallucinations and psychotic terror, leading to a call for help from a colleague. Her words tell much: "Before long I was hopelessly out of control. I could not follow the path of my own thoughts." "The most dreadful . . . psychotically manic." She describes the depression and terror that people have even in the midst of manic excitement. She also tells of the care and support a colleague-friend gave,

insisting that she get into treatment with a psychiatrist and take lithium.

In the section entitled "Missing Saturn," she speaks candidly of missing the high experience and also of the side effects of lithium. We are reminded of the pleasures of illness and the pains of treatment, something that has to make thinking about our own work more complicated. Nothing is black or white, only mixed shades of gray.

Dr Jamison tells of her suicide attempt and the positive support family and friends offered. Their support may have saved her life, literally and figuratively: she physically survived, and she also kept on with her career. In this book she discloses a lot about herself, and patients, families, and professionals can all learn much to help them through the trying experiences of dealing with manic-depressive illness.

John Chapman Urbaitis, M.D.
Psychiatrist-in-Chief, Sinai Hospital of Baltimore
Assistant Professor of Psychiatry, Johns Hopkins University School of Medicine ■

Booklet On Alzheimer Disease Available

Physicians may want to suggest to family members or other care givers a new, illustrated, 48-page booklet published by the National Institute on Aging entitled *Alzheimer's Disease: Unraveling the Mystery*. Written for nonscientists, the booklet describes in simple terms the basic anatomy of the disease and how it affects the brain. In addition to helpful anatomical drawings and brain images, the booklet includes discussions of known and suspected risk factors, current diagnostic tools, and potential biomedical treatments. A glossary of terms and suggestions for further reading also enhance the booklet's usefulness. To obtain a free copy, call the Alzheimer's Disease Education and Referral (ADEAR) Center at 800-438-4380.

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COMING OUT OF THE DARK

Med Chi's Physician Rehabilitation Committee deals with the substance abuse and mental health problems of Maryland physicians, with a confidential and nondisciplinary focus...Addiction, Marital/Family Conflicts, Psychiatric Illness, Organic Impairment, Physical Handicap...If these problems exist, we can help find the solution. Call us.

The Physician Rehabilitation Committee of Med Chi is available to all Maryland physicians, and their families. The Committee is NONDISCIPLINARY and information is kept CONFIDENTIAL. If you, a colleague, or family member is in need of our services call (410)962-5580 or call toll free (800)992-7010

HELPING IS OUR BUSINESS...All donations to the Physician Rehabilitation Committee are used for the delivery of services to Maryland physicians in need of help. If you wish to help further the work of the Committee through a tax deductible donation send your check to: The Medical and Chirurgical Faculty Charitable/Educational Foundation, 1204 Maryland Avenue, Baltimore, Maryland 21201 Please note on your donation: "Physician Rehab"

Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

Question

My office manager recently heard about an edit or computer program called "Correct Coding" for Medicare. However, the information was sketchy and did not say how this might affect coding in my practice. What can you tell me about this new Medicare program?

Answer

The program you refer to is known as Medicare's new *Correct Coding Policy*, effective January 1, 1996. It is a new and more comprehensive bundling policy developed by AdminaStar Federal (a Medicare carrier) at the request of the Health Care Financing Administration (HCFA). It replaces the former limited bundling policy that had been in effect for several years (Uniform Reporting Phase I-III). It was developed to replace both national and local rebundling edits and to be more successful in identifying inappropriate coding combinations. AdminaStar Federal reviewed national and local coding edits, recommendations, and comments from physician specialty societies, CPT code descriptions and guidelines, and Medicare's historical billing data to develop the new *Correct Coding Policy.* CPT code changes and additions and deletions in 1995 and 1996 had not been included in the correct coding edits at the time of implementation. HCFA plans to update the correct coding edits every quarter and provide instructions on the 1995 and 1996 CPT code changes in future updates.

Note: Since January 1, 1996, there have been numerous changes to this policy with many code pairs deleted and a few code pairs added.

How this will affect your medical practice will depend on several factors:

- What percentage of your payer mix is Medicare?
- Does your practice perform multiple services on the same date for the same patient?
- How well informed and trained is your office staff on CPT and Medicare guidelines?

Responses to these questions vary from practice to practice. If Medicaid is a significant payer for your practice; if you often perform multiple procedures on the same date of service for the same patient; and if you are not certain about your office staff's coding savvy, then Medicare's new *Correct Coding Policy* could have a significant impact on coding, billing, and reimbursement for your practice.

The new program includes two main types of edits:

- Edits that identify *comprehensive and component code combinations* (services that are considered a part of another service when performed at the same time on the same patient by the same physician).
- Edits that reflect *mutually exclusive coding combinations* (services or procedures that based on CPT definition or on standard medical practice would not or could not be performed at the same time on the same patient).

Included with these edits are detailed and descriptive narratives regarding each coding principle. The comprehensive/component code edits and mutually exclusive edits bring together in table format the coding principles per CPT code.

General coding principles

Coding based on standards of medical/surgical practice. All services needed to accomplish the comprehensive procedure, are considered part of the standard of care to accomplish procedure, and are not unrelated to the comprehensive procedure, are considered integral to standard medical/surgical services. A medical example would be rhythm strip in conjunction with an electrocardiogram. A surgical example would be lysis of adhesions and an exploratory laparotomy with an abdominal surgery.

Coding services supplemental to a principal procedure (add-on codes). Services identified by CPT with a statement "list separately in addition to code for primary procedure." CPT identifies specific circumstances when it is appropriate to identify a service separately in addition to the primary procedure. Billing for nonsupplemental codes that are part of a comprehensive procedure but do not describe a separately identifiable service is not appropriate.

Modifiers. These provide a method to indicate that a service or procedure has been altered by a circum-

stance but is still described in the CPT code definition. Use of modifiers requires clear understanding of the purpose of each modifier.

CPT procedure code definition. The format of the CPT book dictates that a procedure is considered part of another procedure (i.e., partial description is indented under the main code description that is always followed by a semicolon; all indented descriptions include in their description the portion of the main description that precedes the semicolon). Or some code definitions specify that other specific services are a part of the more comprehensive service (e.g., codes 29872-29898 are not to be billed with 29855). And a code description may define a coding relationship with other services based on the actual descriptions (i.e., *partial* is part of a *complete*; *partial* is part of a *total*; *single* is bundled into *multiple*; *unilateral* is bundled into *bilateral*).

CPT coding book instructions and guidelines. These are the guideline sections found in the six major sections of the CPT book and instructional paragraphs that may appear at the beginning of a major section, at the beginning of a subsection, or before or after a series of codes.

Separate procedures. When provided as part of a more comprehensive procedure, separate procedure codes are not to be billed in conjunction with the more comprehensive code. When a related procedure from the same section, subsection, category, or subcategory is performed, a service designated with "separate procedure" in the CPT book is not to be billed with primary procedure. However, when a separate procedure is performed on the same day but for a different session or at a different site, then the separate procedure can be billed with the more comprehensive service with the use of HCPCS modifier "GB."

Designation of sex procedures. Some CPT codes designate that the procedure is performed only on a male or female. You need to submit the appropriate code.

Most extensive procedures. CPT code descriptions sometimes designate several procedures of increasing complexity. In such cases, it is appropriate to bill only the most extensive procedure actually performed. *Simple* is less extensive than *complex*; *limited* is bundled into *complete*; *intermediate* is bundled into *comprehensive.*

Sequential procedures. When an initial approach during the same encounter is followed by a more invasive procedure, the procedures are considered sequential. The second procedure is usually performed because the initial approach was unsuccessful. Only the CPT code for the more invasive service should be billed (e.g., failed laparoscopic cholecystectomy followed by an open cholecystectomy at the same session).

With/without procedures. Certain CPT codes indicate that the procedures are performed with or without other services. It is important to submit the code for the actual service performed (e.g., closed fracture treatment with and without manipulation; the code for *without manipulation* is bundled into *with manipulation).*

Laboratory panels. When a panel code exists, do not bill the individual laboratory tests that make up the panel. To do so would be unbundling.

Not otherwise classified codes. Due to advances in technology and/or physician expertise with a new procedure or technique, a CPT code may not exist when the procedure or technique is first introduced as an accepted treatment. In such cases, it is appropriate to use the *not otherwise classified* codes. These codes have not been included in the Correct Coding Initiative or in the edits because they can be assigned to multiple procedures.

Watch out for the mutually exclusive combinations. For many code combinations found in the Table, the lesser valued service is identified as the billable service. This is contrary to the normal guidelines Medicare has historically followed.

What you should you

It is very important for a medical practice to monitor the impact of Medicare's 1996 *Correct Coding Policy.* To do so, carefully review the Medicare Explanation of Benefits. Watch for an increase or a change in denials with the explanation, "This service is part of another service and is not separately payable." You will note that the denial reason is generic.

The denial reason will not tell you that the service was considered part of another service because it was classified as *sequential procedure* or *mutually exclusive*. You will only know this if you have a copy of Medicare's *Correct Coding Policy* or by contacting your local Medicare carrier.

Inform your staff members about any coding denials so they can change their coding methodology. As long as your staff remains uneducated about coding and billing changes, payment for your practice's services will appear to be less, for no apparent reason. Informed coders can make good decisions on the best way to bill for a particular service to minimize revenue losses for your practice.

Many specialty societies have challenged some of the bundling code combinations and won, at least for now. Deleted code pairs from the Comprehensive/Component Edit have been communicated to these specialty societies. However, HCFA has also noted that many of these deleted code pairs are being reevaluated at this time and may reappear in the Comprehensive/Component Edit. HCFA has agreed, at least for now, to make the deleted code pairs retroactive for dates of service up to and including January 1, 1996. Thus, payment denials for these selected code pairs are to be reversed by all Medicare carriers and payment is to be made to the providers. Be sure that you receive payment from your Medicare carrier on these deleted code pairs.

To keep abreast of the numerous and frequent changes affecting Medicare's *Correct Coding Policy*, obtain a copy of the *Correct Coding Policy* with a subscription service included. If you believe a particular service should not be denied based on the coding principles found in HCFA's new bundling policy, contact your specialty society or AdminaStar Federal, P.O. Box 50469, Indianapolis, IN 46250-0469. Of course, you can always contact your local Medicare carrier for information, but due to slow communication channels between the carriers and HCFA, you may learn about a change in policy before you actually see it on your Medicare Explanation of Benefits or see it in print in your Medicare carrier's policy journal.

Phase II is coming

Specialty societies have been reviewing 16,000 new unbillable code combinations and comments that were due by June 1. Implementation is expected between October 1996 and January 1997. According to the draft of the Phase II policy changes, the 16,000 new unbillable code combinations can be divided into the following categories:

- 12,000 relate to minor procedures linked to codes describing larger procedures;
- 2,000 are similar to the changes previously made in the policy;
- 2,000 address 1995 and 1996 CPT code changes;
- 400 will bundle code families.

If your practice uses cheat sheets or standard formulas in coding and billing, remember that they are often outdated and could place your practice at risk for revenue loss, billing abuse, and even fraud. Coding and billing for physician services grows more complex every year as insurers adopt more sophisticated procedures that affect the payment of physician services. Any investment you make in the education and training of your coding and billing staff should reap an identifiable return.

Deborah Bell, CPC
Ms. Bell is a regional coding and reimbursement consultant certified in medical coding by the American Academy of Procedural Coders. ■

Are you or members of your staff in a coding quandary? Send your questions to Deborah Bell, CPC, in care of *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201, or fax to the attention of Mary Ann Ayd, 410-547-0915.

Alliance

The Alliance completed its 47th year with a very successful two-day meeting held at Turf Valley Country Club April 25 and 26. A "new" board informational meeting was held on Thursday morning. The 1996-1997 Med Chi president, Dr. Alex Azar, joined the group to bring his message and plans for the year. Later, the Alliance past president and the county presidents and presidents-elect met for an honorary luncheon, thanking them for their contributions to the Alliance, past and future.

President Mehry Reid convened the annual meeting and introduced Caramine Holcomb, AMAA field director, and Jan Meyer, SMAA president. Both officers brought messages to the Maryland Alliance stressing SAVE—Stop America's Violence Everywhere—and breast cancer awareness.

Awards were given for membership achievement, the Mary Strauss Community Service Award, and the Taylor Trophy for notable recognition in medical



The luncheon for county presidents and presidents-elect included Marty Talton, membership chairperson.



Med Chi president Alex Azar, M.D., addressed the Alliance board for 1996-1997.



Caramine Holcomb, AMAA field director, stressed domestic violence awareness.



Judges for Doctors' Day Awards: Maria Baker, Councilor; Bobbie Niklewski; and Ching Barretto.

heritage. Mary Strauss, past president of the AMAA, acted as installing officer for the 1996-1997 leaders of the Alliance board. Following recognition from their husbands, Drs. Segal and Taylor, Helene Segal presented the new president, Mildred Taylor, with a board gift. The meeting closed after the new president's acceptance speech. The program continued with an auction to benefit the AMA-ERF, conducted with great success by auctioneer Mary Strauss.

Med Chi closed its annual meeting with the dinner dance, which was well represented by the Alliance. The 47th year ended with rewarding achievements and the 48th year began.

Mildred (Mrs. Charles E.) Taylor
Med Chi Alliance president, 1996-1997 ■



Jan Myers, SMAA president, spoke about breast cancer.



Mary Strauss, AMAA past president, installed the new officers of the Alliance to Med Chi: Susan Seidenberg, assistant treasurer; Adriana Zarbin, treasurer; Kathy Clark, secretary; Frances O'Brien, first vice president; Helene Segal, president-elect; and Mildred Taylor, president.



Marty Talton, membership chairperson, and Betty Molz, members-at-large chairperson, presented the membership award to Montgomery County.



Georgia Lizas received the Taylor Trophy for outstanding achievement in medical heritage.



Dr. and Mrs. Charles E. Taylor and Dr. and Mrs. Thomas Reid enjoy the dinner dance.

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205, 410-955-2959.

Lipid disorders training program—advanced update, Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150. — **Sept. 6**

Lipid disorders training program—basic course, credits: TBA. Fee: $250. — **Sept. 17–19**

Fourth annual progress in hematologic malignancies and bone marrow transplantation, 7.5 Cat 1 AMA credits. Fee: $125. — **Sept. 20**

Third colloquium and workshops on laryngeal disorders, hands-on laboratories, Renaissance Harborplace Hotel and Johns Hopkins Medical Institutions, Baltimore, MD. Cat 1 AMA credits pending. — **Sept. 27–28**

22nd Annual topics in gastroenterology and liver disease, Cat 1 AMA credits pending. Fee: $535/physicians; $285/residents and fellows; postmarked before Sept. 4, $495/physicians; $250/residents and fellows. — **Oct. 2–4**

Tenth annual core content of emergency medicine: a comprehensive review, Baltimore Marriott Inner Harbor, Baltimore, MD. Cat 1 AMA, ACEP, and AAFP credits available. Fee: $975/physicians; $775/residents and fellows. — **Oct. 7–13**

Advances in pediatric nutrition, Renaissance Harborplace Hotel, Baltimore, MD. Fee: $250/physicians; $200/residents. — **Oct. 28–30**

Advanced pediatric life support courses, 18.5 Cat 1 AMA credits. Fee: $595. — **Nov. 11–13, June 9–11, 1997**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

University of Maryland School of Medicine (continued)

Self-Directed CME Activities

U.S. medical costs and values: primary prevention versus end stage treatment, monograph and test. Expires Aug. 1996, 2 Cat 2 AMA credits. Info: 908-281-3772.

Lipid management for coronary heart disease: a proven hypothesis, audio tape and test. Expires Aug. 1996. 1 Cat 2 AMA credit. Info: 609-497-9743.

Drug-drug interaction: focus on antidepressants, monograph w/response test. Expires Aug. 30, 1996. 2 Cat 1 AMA credits. Info: 203-629-2555.

Continuously throughout the year

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

PHYSICIAN'S RECOGNITION AWARD

During April 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

Hector P.C. Asuncion
Crawford S. Brown
Generosa Calderon-Lazor
Miguel A. Castro
Chan K. Chung
Mercedita S. Conanan
Enrique Daza
Kamalinee V. Deshpande
Cristobal G. Duarte
Calvin S. Ecarma
Bruce A. Feldman
Clarence W. Gehris
Joan K.C. Harrold
John H. Hewitt
Philip H. Lavine
Lolita B. Lerma
Deborah E. Lindsey
Andrew D. Logue
Ricardo A. Murillo
Lalah C. Newbrough
Kevin J. O'Connell
Ronald J. Orleans
Elizabeth S. Porter
Marc S. Posner
Peter H. Rheinstein
Shira H. Rubinstein
Giulio I. Scarzella
Harry L. Sernaker
George W. Shaffer
Norman C. Smith
John R. Starynski
Irving N. Weinberg
Robert A. Weiss

Miscellaneous

Dynamic psychotherapy in the new era: possibilities and problems, sponsored by the American Psychiatric Association Office of Education at The Given Biomedical Institute in Aspen, CO. 18 Cat 1 AMA credits. Fee: $450. Info: Maria Gorrick, 202-682-6145. **July 29–Aug. 2**

New techniques and concepts in cardiology, sponsored by the American College of Cardiology, Hyatt Regency Capitol Hill, Washington, DC. 16 Cat 1 AMA credits. Info: 1-800-253-4636, ext. 695. **Oct. 24–26**

Self-Directed CME Activities

Maryland physicians' campaign against family violence, module one: domestic violence, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10. 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Maryland physicians' campaign against family violence, module two: child maltreatment, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10. 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Continuously throughout the year

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 am. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, in the Zamoiski Auditorium on Thursdays, 9:00 - 10:00 a.m. Info: 410-578-5528.

PHYSICIAN PLACEMENT SERVICE

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral Street
Baltimore, MD 21201
410-539-0872
1-800-492-1056

Physicians wishing to locate in Maryland are invited to submit a résumé to be kept on file with the Physician Placement Service. Candidates are requested to inform the Faculty when they are no longer available for consideration opportunities in Maryland.

MMJ announcements for physician placements in the classified advertisements are charged at the regular classified advertising rate

Parris N. Glendening - Governor of Maryland

Martin P. Wasserman, M.D., J.D., Secretary
Department of Health and Mental Hygiene

J. Mehsen Joseph, Ph.D., Director
Community Health Surveillance & Labs Admin

Ebenezer Israel, M.D., M.P.H., Director
Epidemiology and Disease Control Program

DHMH Maryland Department of Health & Mental Hygiene

EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

201 West Preston Street, Baltimore, Maryland 21201 (410) 225-6700

July, 1996
Selected Communicable Diseases in Maryland in 1995

This report, the first of a three-part series to be continued in August and September, describes the epidemiology of selected communicable diseases reported to the Epidemiology and Disease Control Program in 1995. Communicable disease reporting is mandated by both Maryland law and regulation. This passive system receives reports primarily from health care providers and laboratories; some reports come from other sources. The communicable disease staffs at the State's 24 local health departments verify that cases meets a standard clinical and/or laboratory case definition. Investigators may also seek to identify risk factors for disease acquisition, provide patient education to reduce the spread of disease, identify contacts for prophylactic treatment, and enact other public health control measures when appropriate.

Each week data from local health departments is sent to the Division of Communicable Disease Surveillance at DHMH where it is combined, edited, and then transmitted to the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, where it becomes part of a weekly snapshot of the nation's health in the CDC's Morbidity and Mortality Weekly Report (*MMWR*).

In this report the number in parenthesis after the title of each disease indicates the number of cases *reported in 1995* in Maryland. (Until 1993, this yearly report summarized cases with *onset in* the reporting year.) Below the disease name is the incidence rate for Maryland and the preliminary rate for the United States. Because final national figures are not published until later in the year, the number of U.S. cases is taken from the cumulative number of cases reported in *MMWR* in 1995 (CDC. *MMWR*, January 12, 1996, Vol. 45, No. 1). All incidence rates throughout this report are given as *cases per 100,000 population*. The population figures used in rate calculations come from the Maryland Office of Planning and the U.S. Census Bureau (July 1, 1995 Population Estimate).

The prompt, accurate, and complete reporting by physicians, other health care providers, laboratories, etc., is extremely important to achieving our goal to describe and control communicable diseases in Maryland. We are committed to seeking innovative means to facilitate physician reporting, to establishing electronic laboratory reporting to increase timeliness and completeness, and to providing improved accessibility to surveillance data via our

internet home page (www.charm.net/~epi1). We gratefully acknowledge the contributions of local health departments, infection control practitioners, laboratories, physicians and other health care providers who provided essential information. Thanks are also due the DHMH staff who assisted in case investigation and data analysis, and to Ms. Anne Jones, who coordinated the data entry and editing.

BOTULISM (1)
0.02/100,000 (U.S. 0.05/100,000)

Clostridium botulinum type B and its toxin were recovered from the stool of a five month old hypotonic baby, with weak cry, weight loss, reduced sucking ability, and constipation. Symptoms began a few weeks before hospitalization. The infant recovered with supportive care, and without sequelae. As in most cases of this rare illness, the source of infection was not identified. The infant was primarily breast fed.

GONOCOCCAL INFECTIONS (14,675)
294/100,000 (U.S. 132/100,000)

Reported gonococcal infections decreased thirteen percent from 1994 (Figure 1). Since 1990, reported cases have declined 37 percent. Maryland and U.S. incidence rates for the last 10 years are shown in Figure 1.

Baltimore City noted a 19 % decline since 1994, while the counties (excluding Baltimore City) reported a decrease of 1%. The number of cases by jurisdiction is shown in Table 1. Fifty-nine percent of the cases were in Baltimore City residents, who also accounted for the highest rate (1,200) in the State. Counties with the highest rates were: Wicomico (661), Dorchester (545), Prince George's (309) and Somerset (286).

The age distribution of the cases was similar to previous years; 79% of the cases were reported in the 15-34 year-old age group.

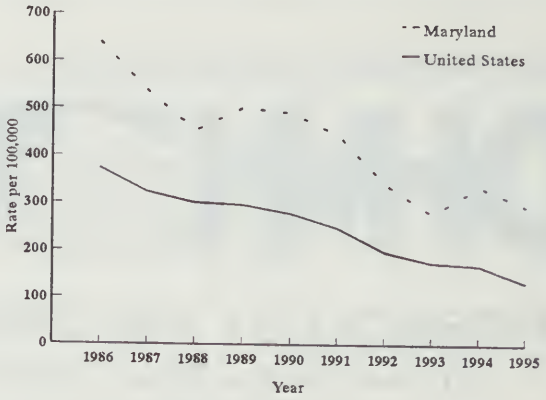


Fig 1. Gonococcal Infection. Incidence Rates in Maryland and the United States, 1986-1995.

!! SYPHILIS ALERT !!

Infectious syphilis is on the rise in Baltimore City and Baltimore County. Health care providers can help reverse this trend by **testing** symptomatic and high risk asymptomatic patients for syphilis, and **reporting** cases immediately .

An alarming result of this rise in syphilis in adults is a **rise in congenital syphilis**--17 cases so far in 1996 compared to 11 for all of 1995. **Congenital syphilis can be prevented** if women seek prenatal care early. Maryland requires that **pregnant women be tested** for syphilis at first prenatal visit and during third trimester (preferably at 28 weeks). Additionally, we recommend that clinicians do **STAT syphilis serologies** on women who present in labor who have unknown, spotty, or no history of prenatal care. Treat infected women and infants immediately.

Obtain more information by calling Balto. City, (410) 396-4448, Balto. County, (410) 887-2713, or Maryland STD Control, (410) 767-6688.

Table 1. Cases of Selected Notifiable Diseases Reported in Maryland in 1995 by County

DHMH
Maryland Department of Health and Mental Hygiene

Jurisdiction	Population	Infectious Parotitis (Mumps)	Pertussis	Rubella (German Measles)	Rubeola (Measles)	Hepatitis A	Hepatitis B	Hepatitis NANB	Hepatitis, Unspecified	Encephalitis	Haemophilus influenzae Disease	Meningococcal Disease	Meningitis, Bacterial	Meningitis, Aseptic	Salmonellosis	Typhoid Fever	Shigellosis	AIDS	Gonorrhea	Syphilis, Primary and Secondary	Syphilis, Congenital	Tuberculosis	Lyme Disease	Rocky Mountain Spotted Fever	Animal Bites	Rabies, Animal
Allegany	74,553		4			1	2			4		3		3	26			10	35	1		2		1	267	6
Anne Arundel	459,705	7	9			26	17	1		3	4	3	8	19	94		38	76	402	17		19	25	1	1,149	38
Baltimore City	692,803	7	13	1		66	81		3	4	26	6	58	18	286	1	185	1,268	8,727	351	11	97	10		1,033	
Baltimore Co.	712,904	6	6		1	20	37	2		3	18	4	27	34	139	1	53	143	695	16		32	80	1	1,543	35
Calvert	64,002	1				2	2			2			3	6	17		4	7	49	1		4	5	1	237	6
Caroline	29,050					1	2			1			1	7	20		3	6	55				7	2	88	22
Carroll	138,803		1			2	1			2	3		4	6	20		1	4	22	1		3	11	1	430	28
Cecil	78,402	1				1	1				1	2	1	2	23		1	14	31				40		312	7
Charles	111,297	1	1			3	3					1	1	21	10		8	13	168	3			12	5	238	5
Dorchester	30,349						3						2	2	12		4	8	165	6	1	3	3	2	128	4
Frederick	175,001	1					3			1	2		5	15	34		2	12	169			6	2		409	74
Garrett	29,550					2								3	4				5				1		112	17
Harford	209,102	4	1			5	12	1		1	5	2	6	7	46		3	22	100	3		7	33		447	17
Howard	218,402	2	1			6	6		1		1		4	14	62	1	14	27	78	4	1	12	17		369	11
Kent	18,750												1		7		1	5	17	1		1	16		79	6
Montgomery	810,000	1	8			52	19			4	7	7	14	57	179	3	121	208	571	8	1	102	27	2	1,251	42
Prince George's	771,605	5	2			23	58			5	3	8	20	51	126		185	388	2,330	69	9	62	20		1,086	34
Queen Anne's	37,349					1	1						1	4	11		1	7	27	2		4	24	1	125	22
Saint Mary's	80,898	1				3	1					2	3	11	9	1	1	11	154	3		1	9	16	168	2
Somerset	24,351						2			1			4	1	7		2	8	71	1		1	3		90	9
Talbot	32,653					2							1	4	8		6	13	65	2			10		119	16
Washington	127,401	1				1	6			4	4	3	1	24	36		1	17	143		1	5	7	2	198	31
Wicomico	79,400	3	1			2	4					1	4	11	19		3	18	515	3		9	5	1	468	7
Worcester	39,749		2			2	1	2					3	3	19		2	3	81				1		145	2
Not Stated															1			212								
Maryland Total	5,046,079	41	49	1	1	221	262	6	4	35	74	42	172	323	1,215	7	639	2,500	14,675	492	24	370	368	36	10,491	441
Maryland Totals	1994	65	53	0	4	198	351	23	8	33	80	28	175	244	1,167	14	323	2,808	16,823	326	22	363	343	20	10,396	520
for	1993	85	167	2	4	184	288	16	5	25	64	50	158	257	1,028	8	453	1,617	13,832	393	36	417	207	23	10,349	624
Prior Years	1992	84	52	5	17	254	388	31	9	22	81	31	165	223	1,021	7	430	1,273	16,513	590	62	442	185	16	10,676	553
	1991	236	61	1	178	258	387	45	20	27	40	35	166	333	1,262	8	258	841	21,464	1,016	54	451	283	22	9,927	579

Table 1. Cases of Selected Notifiable Diseases Reported in Maryland in 1995 by County

Continued

DHMH
Maryland Department of Health and Mental Hygiene

Jurisdiction	Population	Amebiasis	Anthrax	Botulism	Brucellosis	Campylobacteriosis *	Cholera	Giardiasis *	Kawasaki Syndrome	Legionellosis	Leprosy	Leptospirosis	Listeriosis *	Malaria	Mycobacteriosis, Non-TB	Newborn Septicemia	Plague	Poliomyelitis	Psittacosis	S. typhi Carrier	Tetanus	Trichinosis	Tularemia	Typhus, Murine	Vibrio (Non-O1) Infection	Yersiniosis
Allegany	74,553					6									11	1										
Anne Arundel	459,705	2				16		18	2	3	1				60	3			1					1		1
Baltimore City	692,803	5				75		35	2	8		1	1	7	374	7									3	9
Baltimore Co.	712,904					1				6			3	4	65	20										
Calvert	64,002					1		5	1						5											
Caroline	29,050					2									1											
Carroll	138,803					6		7	1	1					12											
Cecil	78,402					1		1							4	1									1	
Charles	111,297					6			1				1		3	1										
Dorchester	30,349														2											
Frederick	175,001					2		4		1				2	25	1									1	
Garrett	29,550					1																				
Harford	209,102					5		2		2					10	15										
Howard	218,402					6		20		1				1	6	1			1							
Kent	18,750							1	1																	
Montgomery	810,000	3		1	2	27		35	15	1	1		4	24	103	2										1
Prince George's	771,605					14		12	15	3				25	141	34									1	2
Queen Anne's	37,349	1						1							2											
Saint Mary's	80,898							2	1	1			1		4											
Somerset	24,351					4									23	2										
Talbot	32,653					5									7											
Washington	127,401					1				2					16											
Wicomico	79,400					17		3							62	4										
Worcester	39,749					10		1							25	1										
Not Stated															79											
Maryland Total	5,046,079	11	0	1	2	206	0	147	39	29	2	1	10	63	1040	93	0	0	2	0	0	0	0	1	6	13
Maryland Totals for Prior Years	1994	12		1	1	204	1	108	36	82		1	19	83	1048	77		1	2	2	1		1	1	1	18
	1993	9		1		141		107	30	52		1	9	57	695	133		1	1	1	2				1	24
	1992	10		1		150	3	69	26	39			25	61	577	136			2	4		3		1	5	23
	1991	9				119	4	90	17	34	5		2	62	507	84		1	5	2	1		2		2	28

Epidemiology and Disease Control Program - Division of Communicable Disease Surveillance

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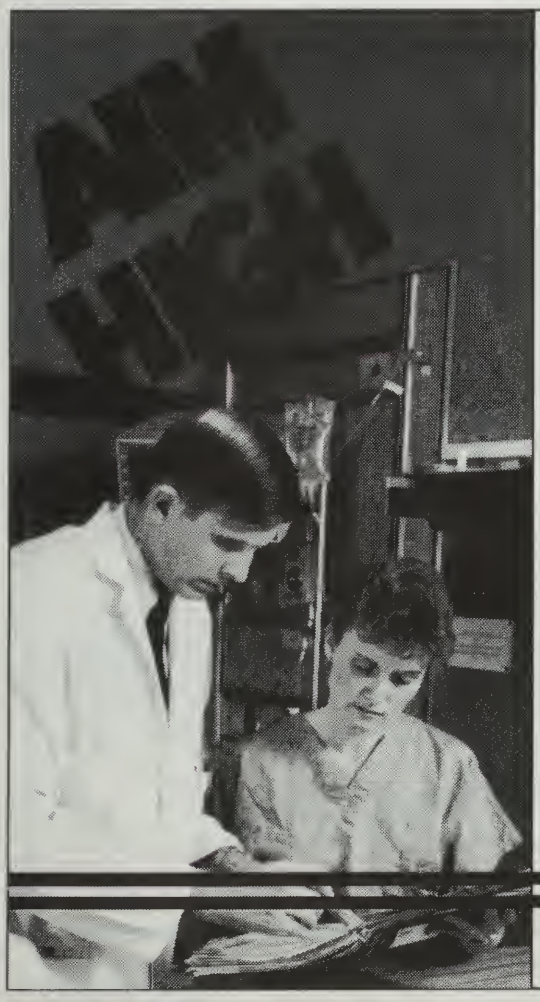
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Cite SEER

Results of a single-blind controlled trial in which oxygen and air were administered in random order to 38 hospice patients suggest that **both oxygen and air may provide significant symptomatic relief of rest dyspnea in patients with advanced cancer** (Am J Respir Crit Care Med 1996;153:1515–1518). There were marked individual differences in patients' responses to oxygen and air, but there was no evidence that a history of lung disease or low initial arterial oxygen saturation were correlated with response. Investigators concluded that any patient with advanced cancer who is dyspneic at rest should be given a trial of oxygen or air therapy.

Given the increasing number of reports of drug-resistant bacteria, Cite Seer was disturbed by a study suggesting that **some practitioners apparently see no harm in prescribing antibiotics for the common cold** (*J Fam Pract* 1996;42:357–361). Using Kentucky Medicaid data for a 1-year period ending June 1994, investigators selected a random sample of claims with a primary diagnosis of acute nasopharyngitis and a secondary diagnosis, if present, of acute sinusitis or otitis media. **Of the 1439 patients seen for 2171 separate encounters for the common cold, 1290 (60%) filled a prescription for an antibiotic,** 752 (35%) did not fill a prescription, and 129 (6%) filled a prescription for symptomatic treatment (e.g., an antihistamine). The 40 patients (2%) who had a secondary diagnosis were not more likely than the total sample to receive an antibiotic prescription.

In patients with insulin-dependent diabetes, atherosclerotic vascular diseases are the most common causes of early death. A Danish cohort study (*BMJ* 1996; 312:871–874) has now demonstrated that **slightly elevated urinary albumin excretion (30 to 300 mg/24 h) predicts atherosclerotic vascular disease in patients with insulin-dependent diabetes.** The predictive effect was independent of diabetic nephropathy, conventional atherogenic risk factors, and duration and control of diabetes.

Will the "second-line" antirheumatic drugs please step forward. Although nonsteroidal antiinflammatory drugs (NSAIDS) have traditionally been considered the appropriate first treatment for patients with recent-onset rheumatoid arthritis, there has been a trend in recent years to initiate treatment with the so-called second-line therapies instead. Also called slow-acting antirheumatic drugs (SAARDS), they include hydroxychloroquine, gold salts, D-penicillamine, methotrexate, azathioprine, and others. **Results of the first reported clinical trial to compare the delayed and immediate introduction of SAARDS with initial NSAID treatment in patients with rheumatoid arthritis indicate that SAARDS are more effective in suppressing signs and symptoms of disease activity at 1-year follow-up.** Progression of radiologic abnormalities, however, was similar in both NSAID- and SAARD-treated patients. The researchers also found that the overall toxicity associated with SAARDS was acceptable compared to NSAIDS (*Ann Intern Med* 1996;124:699–707).

Pills in a bottle have no therapeutic effect. University of Michigan researchers report that **even among a group of 58 highly motivated, educated, paid subjects asked to take a single daily dose of aspirin for 14 days, the adherence rate was only 35%** (*Arch Fam Med* 1996;5:297-300). Subjects missed doses, divided the daily dosage rather than taking the entire dose once daily, and took extra doses beyond the treatment period. Although poor compliance is hardly a new finding, it should always be considered when a patient fails to respond to treatment.

Cite SEER

Does antibiotic prophylaxis reduce the incidence of infection associated with acute surgical treatment of closed limb fractures? The Dutch Trauma Trial, a double-blind, prospective study involving 2195 patients, was designed to resolve the controversy (*Lancet* 1996;347:1133–1137). Patients aged 18 or older scheduled for primary osteosynthesis or placement of a prosthetic device in the treatment of closed limb fractures were randomly assigned to receive one preoperative dose of the long-acting, broad-spectrum antibiotic ceftriaxone 2 g or placebo. They were then evaluated at 10, 30, and 120 days for the development of wound and nosocomial infections. After 4 months, a superficial or deep wound infection occurred in 79 patients (8.3%) in the placebo group and 36 patients (3.6%) in the ceftriaxone group. In the first month, the nosocomial infection rate was 10.2% with placebo and 2.3% with ceftriaxone. The investigators conclude that **all patients undergoing surgery for closed fractures—not just those with predisposing risk factors for infection—should receive adequate antibiotic prophylaxis.**

Results of a randomized, double-blind, crossover study in healthy volunteers indicate that **coadministration of the calcium channel blocker diltiazem (Cardizem) and the benzodiazepine hypnotic triazolam (Halcion) may be contraindicated** (*Clin Pharmacol Ther* 1996;59:369–375). Triazolam is metabolized by the CYP3A4 isoenzyme, which is also involved in the metabolism of diltiazem. Diltiazem apparently inhibits triazolam metabolism during the first-pass and elimination phases, producing what the investigators consider clinically significant increases in the mean area under the triazolam concentration-time curve as well as the elimination half-life and peak plasma concentration of triazolam.

Talk to your patients about melanoma! In 1995, the American Academy of Dermatology conducted a nationwide telephone survey **to assess public knowledge of and awareness about melanoma** (defined as knowledge that melanoma is a type or cancer or specifically a type of skin cancer). Of the 1001 respondents, **42% had no knowledge about melanoma and only 34% knew it is a type of skin cancer.** Awareness also varied by age, sex, income, and education level. Approximately 50% of men and 35% of women did not know the term melanoma. Although 38% of those aged 25 to 64 knew melanoma is a skin cancer, only 16% of those aged 18 to 24 knew that fact. Approximately 50% of college graduates knew melanoma is a skin cancer, compared with 16% of those with less than a high school education. Among those with annual incomes less than $20,000, 60% did not know the term melanoma. Of those with annual incomes of $75,000 or more, 31% reported not knowing the term (*MMWR Morb Mortal Wkly Rep* 1996;45:346-349).

Ejaculation during the 48 hours preceding a serum prostate-specific antigen (PSA) test for prostate cancer may increase the likelihood of a false-positive result. After obtaining baseline PSA levels in 64 healthy men aged 49 to 79 who had abstained from ejaculation for one week, investigators measured subjects' PSA levels at 1 hour, 6 hours, 24 hours, 48 hours, and 1 week after ejaculation. In 87% of the men, PSA levels were highest one hour after ejaculation, but by 48 hours had returned to baseline levels in 97% (*Urology* 1996;47:511–516).

Although methotrexate has been shown effective in the treatment of chronic active Crohn disease, results of what the investigators believe is the first randomized, double-blind trial of **oral methotrexate for the treatment of chronic active ulcerative colitis** indicate the drug **is no better than placebo in inducing or maintaining remission** (*Gastroenterology* 1996;110:1416–1421). Whether a higher oral dose of methotrexate or parenteral administration would be effective remains unknown.

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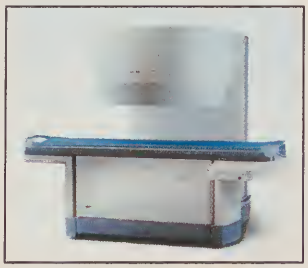
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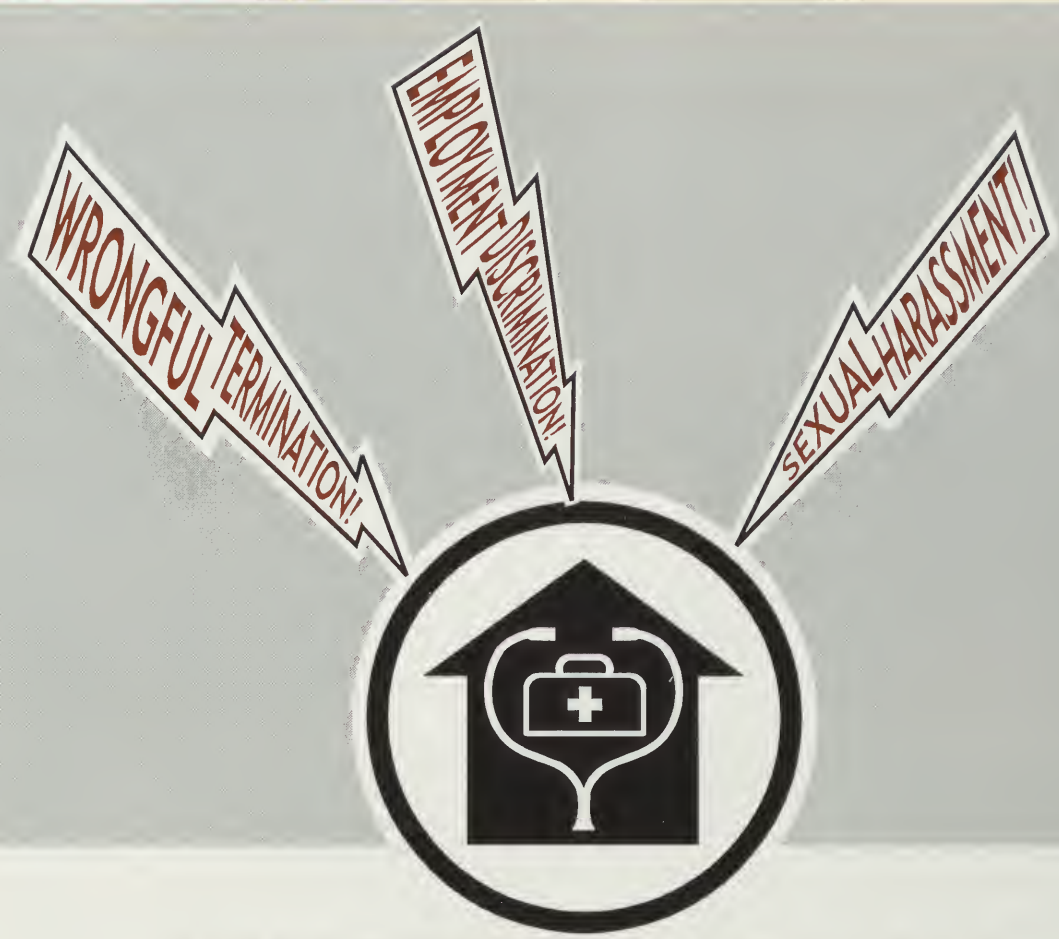
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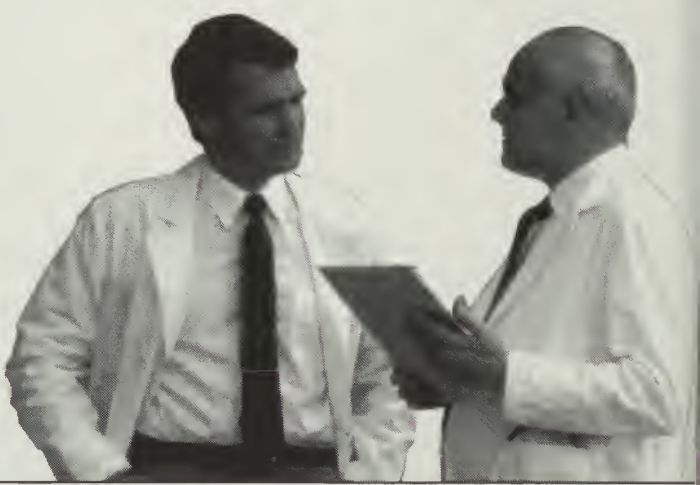
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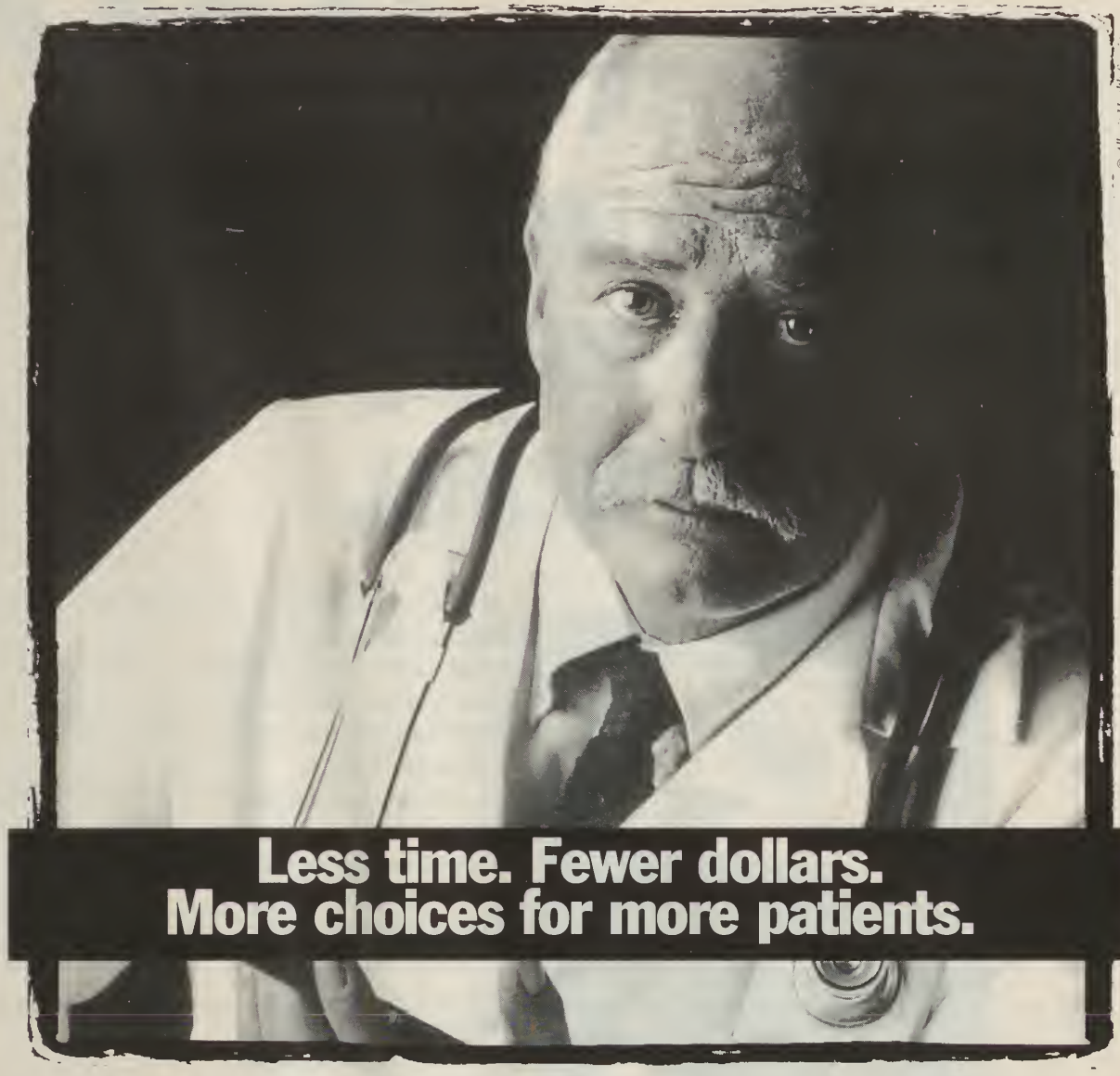
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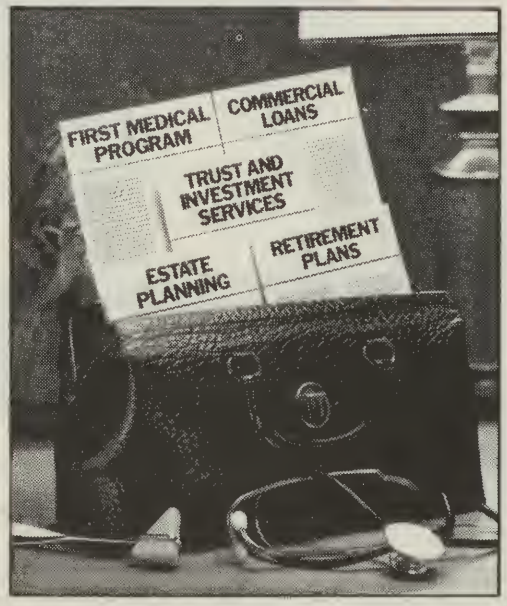
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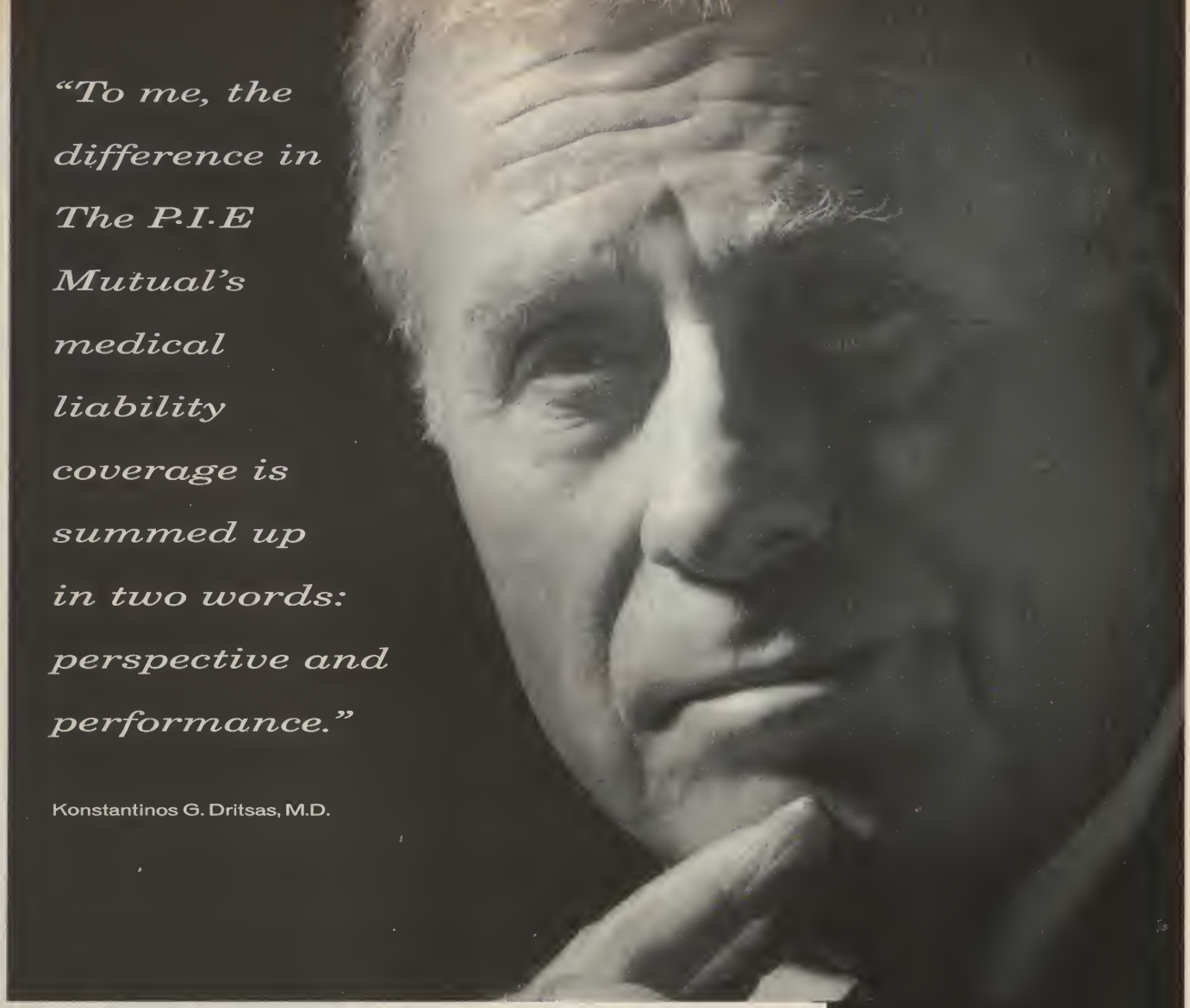
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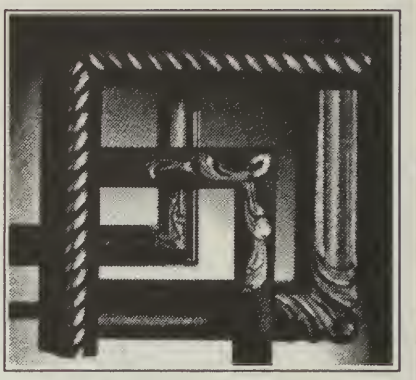
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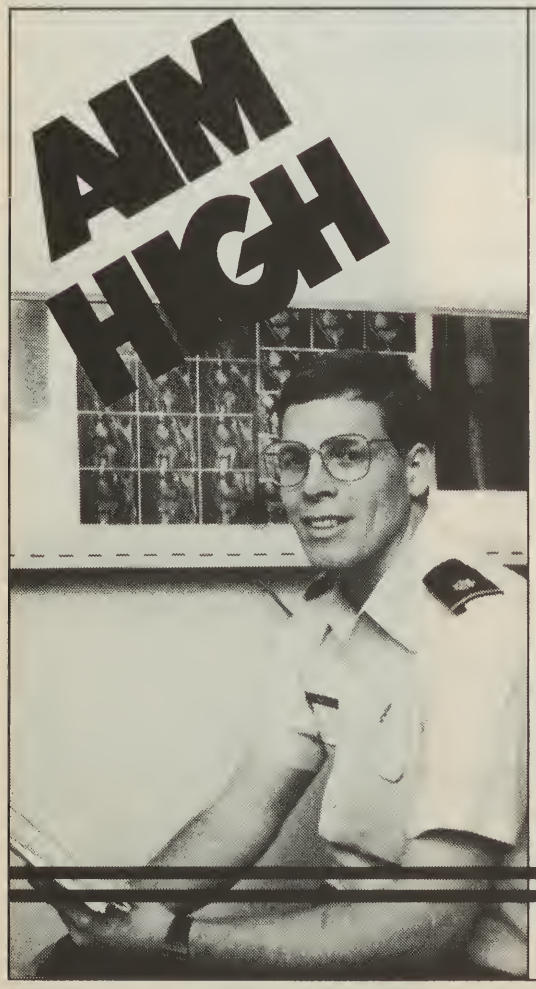
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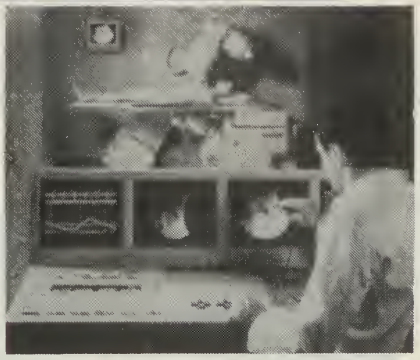
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Chief Executive Officer's Newsletter

August 1996

Med Chi semiannual meeting programs available

The preliminary program for Med Chi's semiannual meeting, "Current Diagnostic, Treatment, and Educational Concepts for Today's Medical Practice," can be found in this issue of the *MMJ* on pages 697 through 708. Details of the program include information on CME programs, social events, and agenda items to be offered at the meeting on September 6-8, 1996, at the Sheraton Fontainebleau Resort and Conference Center in Ocean City, Maryland. Please don't forget to mail or fax your registration as soon as possible.

If you are interested in staying at the Sheraton during the meeting, room rates are $135 per night for single/double occupancy (tax and incidentals not included). To reserve a room, call the Sheraton at 800-638-2100 and tell them you are attending the Med Chi meeting. **Reservations must be made by August 5, 1996; however, Med Chi's block of rooms may fill before that date.**

AMA Annual Meeting

Following is a report on the four Maryland resolutions submitted to the AMA. All of our resolutions were adopted or referred to the AMA Board of Trustees. Look for a more complete review, from George Malouf, M.D., chairperson of the Med Chi AMA Delegation, of the highlights from AMA A-96 in the September issue of the *MMJ*. In addition, this information will be sent to all component and specialty societies.

Ted Lewers, M.D., reelected to AMA Board of Trustees

Easton nephrologist and internist Donald "Ted" Lewers was successful in his bid for reelection to a second 3-year term on the AMA Board of Trustees at the AMA annual meeting in June. A member of the AMA House of Delegates since 1984, Dr. Lewers served first as an alternate delegate and from 1985 as a delegate from Med Chi. Long active in organized medicine, Dr. Lewers has held all positions of leadership at Med Chi, including president from 1985 to 1986.

Maryland resolutions adopted at AMA annual meeting

As a result of actions by the Med Chi House of Delegates, four resolutions from Maryland were referred to the AMA for its 1996 annual meeting.

Resolution 213 - Patient Data Collection

This resolution was combined with Resolution 203 and re-titled "Confidentiality of Patient Health Care Information Obtained by Data Commissions, Clearinghouses and Similar Entities." The House adopted the following resolution: *RESOLVED, That the American Medical Association*

1. study the issue of confidentiality of patient health care information when such information is being collected by health data commissions or other entities that collect, evaluate and disseminate health care data,

2. examine the legal issues surrounding health data commissions or similar entities obtaining patient health care information without the patient's consent,
3. examine the issue of insurance companies releasing confidential health care information to any third party, including the Medical Information Bureau and similar entities, and
4. *report back to the AMA House of Delegates at the 1997 Annual Meeting, including recommendations to ensure confidentiality of patient health care information and educate patients regarding these issues.*

Resolution 304 - Retraining and Relocating Physicians

Adopted on the consent calendar of the AMA House of Delegates

RESOLVED, That the American Medical Association work with national specialty societies, the American Board of Medical Specialties and other appropriate groups to address the problem associated with retraining and relocating physicians who are no linger able to continue their practices because of changes in physician workforce needs in their communities.

Resolution 504 - Dioxin and Medical Waste Incineration

This resolution was referred to the AMA Board of Trustees.

The resolution requested the AMA declare that exposure to dioxin poses a substantial preventable health risk that warrants AMA support for mandatory reductions in the amount of organochlorine-containing plastic medical waste materials being incinerated (and thereby releasing dioxin into the environment).

Resolution 708 - Collective Bargaining

This resolution was referred to the AMA Board of Trustees.

Resolution 708 calls for the AMA to revisit existing physician collective bargaining policies toward the establishment of clear legal rights of physicians in managed care panels to engage in collective bargaining and to represent its members in grievance proceedings and further that a report be issued during the AMA I-96 meeting (December 1996) so as to provide an appropriate update.

AMA elects officers

Daniel H. Johnson, Jr., M.D., of Metairie, Louisiana was inaugurated as president, succeeding Lonnie R. Bristow, M.D.

Percy Wootton, M.D., of Richmond, Virginia, was elected president-elect of the AMA and will become president at the AMA's June 1997 annual meeting.

Richard F. Corlin, M.D., of Santa Monica, California was reelected Speaker of the House.

John A. Knote, M.D., of Lafayette, Indiana was reelected Vice Speaker of the House.

Palma E. Formica, M.D., of New Brunswick, New Jersey was reelected to a three-year term on the AMA Board of Trustees.

Donald J. Palmisano, M.D., of Metairie, Louisiana and J. Edward Hill, M.D., of Hollandale, Mississippi were elected to a three-year term on the AMA Board of Trustees.

William H. Mahood, M.D., of Abington, Pennsylvania was elected to fill the unexpired term of Percy Wootton, M.D. on the AMA Board of Trustees.

DHMH announces new inspection rules

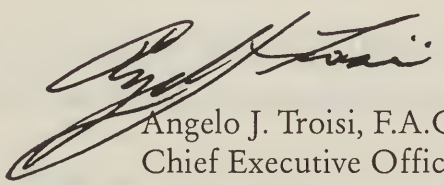
Inspections of physician office laboratories for compliance with federal CLIA rules will now occur only after the physician has received three weeks' notice, not the three days' notice under current practice. However, the inspectors will choose the date for their office visit.

Until now, officials have announced inspections only days before they arrive to examine a physician's office lab. Michael Wajda, assistant director of laboratory licensing for the Maryland Department of Health and Mental Hygiene's (DHMH) Licensing and Certification Administration, said in July that his inspectors will notify physicians that an inspection will occur with three to four weeks' advance notice. The policy change was mandated by the federal Health Care Financing Administration and it is effective immediately. The DHMH unit conducts the inspections on behalf of the federal agency.

More JCAHO tips for accreditation visits

Following are clinical procedures with which your practice staff should be in compliance, especially around the time of your next JCAHO visit.

* Verbal orders must always be signed.
* Advance directives must be given to all inpatients and outpatients who have made more than three visits.
* A current formulary must be on the unit.
* Controlled substances must be stored in an area that can be locked, and crash carts must be locked.
* Report all adverse drug reactions to the ADR Hotline at 8-2377.
* Conscious sedation patients must have received a risk assessment before sedation.
* Oxygen shut-off must be done by authorized staff. Make sure you know who is authorized to shut off oxygen valves and where those valves are located in your area.
* Patients must receive the same standard of care, regardless of the unit in which they are treated or the day of the week (particularly weekends).
* Medical records cannot be removed from the medical system premises without a subpoena.



Angelo J. Troisi, F.A.C.H.E.
Chief Executive Office

Maryland Regulatory News Briefs

Michael Preston, J.D., Med Chi general counsel

HCACC: survey of small group market carriers for '95 shows HMO, PPO dominance; 40% of small employers, 400,000 lives covered

A recent Health Care Access and Cost Commission report on health insurance plans issued to Maryland small businesses shows that this market is overwhelmingly dominated by HMO and PPO-type plans and that HMOs generally enjoy a significant advantage in cost per employee.

The report examines underwriting by health insurers and HMOs during 1994-95, the first full year of underwriting activity in the health insurance market for employers having 2 to 50 employees, known as the small group market. This sector of the insurance market was affected by Maryland's 1993 health insurance reform law.

Based on a survey of information required to be reported by all health carriers, the report states that nearly 43,600 employer groups are covered by carriers in the small group market, representing more than 40% of small employers and more than 400,000 individuals. HCACC released the report at its June meeting.

More than 90% of all lives covered in the small group market were enrolled in HMO or PPO plans, nearly evenly divided between both types, with about 5% each in indemnity and point-of-service (POS) types. Average cost per employee for all plans was $2,879, and the average cost of HMO plans was more than 25% less than the average for indemnity plans.

The average cost per employee ranged from a low of $2,737 for HMO plans to a high for indemnity plans of $3,445. In between, average per-employee cost for POS plans was $2,817, and $2,979 for PPO plans.

The 1993 small group market reform law prohibits pre-existing condition exclusions, imposes adjusted community rating, and requires that all health plans sold to small employers must contain a standard set of benefits known as the Comprehensive Standard Benefit Plan. It also specifies that the average per-employee rate for the plan must not exceed 12% of Maryland's average annual wage, and requires HCACC to modify the benefit package if this ceiling is exceeded. The report states that the average cost of the plan per employee in 1995 was $2,879, an amount below the ceiling of 12% of the state's 1995 average annual wage of $28,985.

HCACC executive director John Colmers stated that, although the average cost of the plan came in below the law's upper limit, HCACC would need to be sensitive to future changes in factors affecting the cost of the plan, including the number of dependents per policy and the effect of new mandated benefits.

In May, however, HCACC included in the plan costly benefits recently mandated by the legislature for postpartum maternity hospital stays and ER benefits for HMO patients, largely out of concern that rejecting these benefits for the plan would cause the legislature to withdraw HCACC's discretion to choose benefits. The postpartum maternity benefit alone was estimated to increase the plan's overall cost by more than $4 million, or at least 1%.

HCACC: Payment System Advisory Committee mulls recommendations on Medicare RBRVS

Maryland's physician payment system will be based largely on the Medicare Resource Based Relative Value Scale (RBRVS), but will not include minimum and maximum fees if HCACC implements its staff recommendations to its Payment System Advisory Committee.

In June and July, the Committee debated payment system features that have been urged by its consultant, the Center for Health Economics Research (CHER), and HCACC staff responses to CHER's proposals. In its reports, issued earlier this year, CHER called for adoption of the Medicare RBRVS as the framework for implementing the physician payment system component of Maryland's 1993 health care reform law. Under the RBRVS scheme, physician fees are determined by applying a table of resource value units to any given

CPT code and multiplying that by a dollar value, or conversion factor, to yield a dollar value for the work done. The conversion factor thus determines the rate of compensation.

The CHER recommendations include a proposal that all payers and physicians would have one conversion factor that would be published, and that the allowable range for conversion factors would be from $35 to $65. Hence, the consultant's recommendations introduced the idea that HCACC would be in the business not only of capping physician fees that might exceed annual targets, or budgets, but also that it would set a floor for physician fees by enforcing a low end for conversion factors as well.

HCACC staff's response to the CHER report recommends that the Commission adopt Medicare RBRVS and practice expense features; but the staff urges rejection of CHER's recommendation that HCACC fix an allowable floor and ceiling for practitioner conversion factors. CHER's recommendations were the subject of a public hearing on June 4, which was the first opportunity for public testimony on the payment system features of the law. At that hearing, insurers and the association of HMOs uniformly asserted that they were opposed to implementation of the payment system generally. Med Chi raised questions about HCACC's authority under the 1993 law to implement and enforce minimum, as well as maximum fees.

HCACC: Physician surveys of HMO quality to sample only primary care

Surveys of HMO physicians, which will be part of HCACC "report cards" on HMO quality, will sample only primary care practitioners, at least initially. Physician members of HCACC have expressed concern about this limitation on the scope of the survey, and the full Commission said in June that future versions of the survey would sample specialists as well.

Commissioner Alex Azar, M.D., who is also Med Chi president, was joined by HCACC chairperson Donald E. Wilson, M.D., in voicing misgivings about sampling only primary care physicians. Speaking at the HCACC's June meeting, Dr. Azar, an opthalmologist, said many specialists feel that referral of HMO patients for speciality care often is delayed, resulting in unnecessary complications and expense.

HCACC will issue surveys of HMO enrollees and practitioners, and the results of both surveys will be combined to develop HMO "report cards." HCACC expects to begin mailing the surveys to practitioners in March 1997.

HCACC: Measures taken for data bank privacy; workgroup refocused

Responding to public concern about the privacy of medical information that it will collect as part of its Maryland Medical Data Base project, HCACC has taken steps to exclude self-pay patients and to exclude certain patient identifiers. HCACC's Privacy and Confidentiality Workgroup also has been reformed and will focus on determining what information may be proprietary and what access should be given to the data bank.

Data collected by HCACC from insurers and other payers now will be stripped of its encrypted number and replaced with a random number, and the patient's birth date will be removed. The month and year of birth will remain. No information will be gathered on patients who pay for their health care from their own funds. Psychiatrists have expressed grave reservations about the data bank, noting that many psychiatric patients chose to pay cash rather than use their health insurance out of concern that their condition will be disclosed.

At its June meeting, the Privacy and Confidentiality Workgroup decided to focus its attention on setting guidelines for judging what payer-insurer information should be regarded as proprietary, what access should be granted to the data for academic or nonacademic purposes, and what access protocols should be established.

DHMH: Medicaid managed care rates set at 90% of fee for service; regulations due Sept. 15

Rates paid to Medicaid managed care organizations (MCOs) under the Department of Health and Mental Hygiene's proposed Medicaid reform effort will be about 90% of the current fee-for-service rate, DHMH Deputy Secretary Barbara Shipnuck announced in June. The actual regulations under which the Medicaid managed care program will be implemented are expected to be issued in draft form in August; they must be presented to legislative committees by September 15.

All groups that want to serve as Medicaid MCOs, including existing HMOs, must submit applications to DHMH, which will begin selecting MCOs in November. Although regulations detailing the requirements to be placed on MCOs are still being written, Shipnuck said DHMH has prepared guidelines for applicants, pending approval of the regulations.

DHMH has filed an application with the Federal Health Care Financing Administration requesting a waiver of various federal requirements for the state's Medicaid program. The waiver request is based on legislation passed by the General Assembly at its last session. Under the proposal, substantially all of the state's Medicaid population, except for certain long-term and chronic care patients, will be served by MCOs.

Maryland's state budget for the current fiscal year incorporates the savings the Department expects to realize by implementing managed care for nearly all Medicaid participants. The program will be implemented between January and June of 1997 (the second half of the current fiscal year). DHMH secretary Martin P. Wasserman, M.D., J.D., has said DHMH expects savings of $19 million during this period and annualized savings of about $34 million.

The Medicaid proposal is intended to permit various new or existing organizations to serve as MCOs, in addition to licensed HMOs. All MCOs will be required to offer a comprehensive package of services, excluding mental health services, which will be managed separately. Secretary Wasserman stated at a June meeting for parties interested in serving as an MCO that the basic premise of the managed care program will be to offer Medicaid participants "a medical home," with emphasis on delivery and coordination of care by primary care providers.

MCOs are barred from marketing directly to potential enrollees. Deputy secretary Shipnuck said this prohibition will take effect in October, three months ahead of the program's implementation in January. All Medicaid recipients will be required to select an MCO, including those who already are enrolled in a Medicaid HMO or managed care program.

Currently, about 25% of Maryland's Medicaid population is enrolled with six participating HMOs. Another 25% of this population is enrolled in the Maryland Access to Care (MAC) program, a primary care management system.

DHMH: HMOs offer help in forming minority provider networks

The Maryland Association of HMOs (MAHMO) has offered to provide assistance to physicians and other practitioners who want to form provider networks. Speaking at a DHMH-sponsored minority provider workgroup, Natalie Collins, a MAHMO attorney, said her member plans will commit to giving information that helps practitioners know what HMOs are looking for when they contract with provider networks. She also held out the possibility of financial assistance.

"If you look good, you will probably get HMO business, especially if your organization is minority owned," said Ms. Collins. The minority provider workgroup was convened by DHMH Secretary Martin P. Wasserman, M.D., J.D., in January. It has met monthly since then to address concerns expressed by some black physicians and other providers that they are excluded from HMO provider panels. The workgroup's focus has moved from targeting legislative mandates for minority participation to education and training for "managed care readiness." At the June meeting, consensus emerged among the participants to work toward a conference or series of clinics in the fall to educate not only minority providers, but also others who are interested in learning how to form a network that responds to HMO needs.

Ms. Collins said the HMO association members would be willing to participate and give direction about the characteristics of networks that the various HMOs look for.

Prosecutors: U.S., State plan stepped-up health care fraud actions

Responding to estimates that health care fraud costs government and insurers as much as $90 billion each year, state and federal law enforcement officials are targeting health care providers, large and small, for greater scrutiny and prosecution.

Speaking at an all-day conference in June, which her office convened to drive home the point, United States Attorney for the District of Maryland Lynne A. Battaglia said the U.S. Justice Department regards health care fraud as its second highest priority, behind only investigation and prosecution of violent crime.

Officials at the conference from the FBI, Health Care Financing Administration, insurance industry, and particularly Maryland's Attorney General's office, gave expansive meaning to the term health care fraud: ranging from billing for services not rendered to phony automobile accidents.

The Maryland Attorney General's office has established a separate health care fraud unit, funded by the Justice Department, that will address not only billing irregularities affecting government health care payers, but also a host of other conduct involving physicians and other health care providers that is not necessarily related to reimbursement. The new unit intends to investigate and prosecute issues as diverse as "consumer abuses, licensing, patient abuse, worker's compensation and automobile accident fraud," said Assistant Attorney General Sid Rocke, the head of the unit.

FBI officials said the cost of health care fraud nationally ranges anywhere from $80 billion to more than $100 billion each year, with the disparity in estimates resulting in part from the loose description of the phenomenon. Applying national data to Maryland health statistics, FBI Special Agent Kevin Perkins estimated that health care fraud in Maryland costs upwards of $520 million annually. He said the FBI is focusing its efforts on physicians and other health care providers who engage in suspect billing practices or who participate in "accident mills" as part of liability insurance fraud schemes.

While FBI officials and federal prosecutors highlighted high-profile prosecutions of national entities, like their $150 million settlement with Caremark, Inc., the Maryland Attorney General's office expressed an intention to prosecute individual physicians for over-billing even small amounts. Carolyn McElroy, director of the Maryland Medicaid Fraud Control Unit, claimed with some satisfaction that her office has a "tough guy" reputation and indicated that prosecutions for over-billing of even small amounts can be expected.

HEALTH LAW FEDERAL ROUNDUP

Antitrust evaluation of physician networks

Barry F. Rosen and Rebecca L. Dietz

In response to the demands of managed care insurers, health care provider networks are forming and growing at astounding rates. In the meantime, regulators are grappling with the task of encouraging the efficiencies and cost savings that such networks can generate, while safeguarding health care consumers from anti-competitive collusion.

To this end, the Department of Justice and Federal Trade Commission (the Agencies) issued joint *Statements of Enforcement Policy and Analytical Principles Relating to Health Care and Antitrust* in September 1994 (the 1994 Statements). The 1994 Statements describe how the Agencies will analyze certain conduct and describe when the Agencies will challenge that conduct as violating the federal antitrust laws.

Defining the physician network

Statement 8 of the 1994 Statements addressed the Agencies' enforcement policy for physician network joint ventures. A physician network joint venture is a physician-

controlled venture in which the otherwise independent member physicians collectively agree on prices or other significant terms of competition and jointly market their services.

The first step in the Agencies' antitrust analysis is to determine whether the physician network is exclusive or nonexclusive. An exclusive physician network places significant restrictions on its members' freedom either to affiliate with other physician networks or to contract individually with health benefit plans. A nonexclusive physician network, on the other hand, has no significant restrictions, either explicit or implicit, on other affiliations or individual contracting.

Antitrust safety zones

Statement 8 establishes antitrust safety zones in which a physician network will *not* be challenged by the Agencies absent extraordinary circumstances, depending on whether the physician network is exclusive or nonexclusive. To qualify for either antitrust safety zone, however, the physician network must be economically integrated, that is, its members must share substantial financial risk. The Agencies cite the two most common means of risk sharing, capitated rates and the use of payment withholds that are distributed only if specified cost containment goals are met, but do not foreclose the possibility that substantial financial risk can be shared in other ways.

An exclusive economically-integrated physician network falls within the antitrust safety zone if it comprises 20% or less of each physician specialty market, that is, those physicians who practice in a given physician specialty in a relevant geographic market. The antitrust safety zone for a nonexclusive economically-integrated physician network is 30% or less of each physician specialty market.

Rule of reason

A physician network may not meet the safety zone criteria either because it is not economically integrated or because it is too large. If the physician network is not economically integrated, it must offer a new product producing substantial efficiencies or it will be viewed as *per se* illegal. Physician networks that offer such new products, and physician networks that are economically integrated, but are too large to fall within the safety zones, however, will be evaluated under a rule of reason analysis.

Under the rule of reason analysis, existing and potential anticompetitive effects of the physician network, such as the ability to raise prices above competitive levels or to prevent the formation of competing networks, are balanced against existing and potential procompetitive efficiencies, such as the cost savings associated with the assumption of financial risk, reduced administrative costs, improved utilization review, case management, or quality assurance, and economies of scale. If procompetitive efficiencies outweigh anticompetitive effects, and if agreements and conditions of the network that operate to restrict competition are reasonably necessary to achieve the efficiencies sought by the network, the physician network will not raise antitrust concerns.

Qualified managed care plans

Health care payers, however, are requiring access to larger physician panels than are allowed by the Statement 8 guidelines. In several recent proposed consent judgments, the Department of Justice recognized this and established parameters for expanded physician networks, called qualified managed care plans (QMCPs).

A QMCP has *two* classes of physicians on its provider panel. The first comprises member physicians. Member physicians share substantial financial risk, and the QMCP contracts with health care payers on their behalf. Thus, the member physicians operate as a traditional physician network and are therefore subject to the 20 and 30% limitations of Statement 8.

The second class of physicians on a QMCP provider panel comprises subcontractor physicians, who do not share in the financial risk of the physician network. Thus, with respect to this subcontractor physician class, the QMCP operates with the same incentives as a nonprovider-controlled plan.

The fee arrangement between the subcontractor physicians and the QMCP is independent of the contract between the health care payer and the QMCP, and the QMCP bears the risk for payments to and the utilization practices of the subcontracting physicians. This creates a divergence of economic interest between the member physicians and the subcontractor physicians, such that the member physicians have the incentive to bargain down the fees of the subcontracting physicians.

A QMCP must take care not to compensate subcontractor physicians in any manner that substantially replicates the compensation of member physicians. Thus, increases in fees of subcontractor physicians cannot be passed through to the health care payer, but must be borne by the QMCP itself. Conversely, the payments to subcontractor physicians cannot depend on or vary in response to the terms of the QMCP's contracts with care payers.

If these requirements are met, however, the subcontractor physician class may be as large as is necessary to meet the needs of the market. Thus, absent anticompetitive abuse of the QMCP format, a QMCP could comprise an entire physician specialty market and still not be challenged by the Agencies.

The future

Even greater changes may be on the horizon. If passed by the U.S. Congress, House Bill 2925, entitled the Antitrust Health Care Advancement Act of 1996, will prohibit the application of a *per se* standard of illegality to conduct related to the establishment and operation of a health care provider network. The bill instead mandates the application of a rule of reason analysis to all such conduct. The bill also directs the Agencies to issue new joint enforcement guidelines and analytical principles in conformance with this standard within 180 days of the bill's enactment.

In anticipation of the bill's enactment, the Agencies have announced that they expect to issue new policy guidelines by the end of August 1996. These new statements may incorporate the QMCP guidelines; they may, however, make even more significant changes to health care antitrust analysis.

Conclusion

The statements and the QMCP guidelines reflect the Agencies' efforts to provide quantitative guidelines that will allow health care providers to adapt to a dynamic market environment with reasonable degrees of certainty, yet also maintain sufficient restrictions to avoid the risk of competitive harm.

Absent extraordinary circumstances, a physician network that stays within the Statement 8 safety zones or adheres to the structure of a QMCP can be comfortable that antitrust concerns have been minimized. A network that goes beyond these guidelines, however, should evaluate its competitive impact carefully and be prepared to justify any anticompetitive effects with significant efficiencies that benefit the health care consumer.

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HCFA regulates physician risk taking

HENRY E. SCHWARTZ

The Health Care Financing Administration has issued a final rule affecting the manner in which physicians and physician groups may be paid by prepaid health care organizations serving Medicare and Medicaid populations. HCFA is regulating physician incentive plans to ensure that no payment of any kind may be made directly or indirectly under an incentive plan to a physician or physician group as an inducement to reduce or limit medically necessary services covered under the organization's contract with Medicare or Medicaid enrollees. In other words, capitation, bonus, or withhold arrangements are suspect, because they may provide an incentive for a physician to reduce the provision of services.

It should be noted that these regulatory provisions apply only where risk relates to referrals of services by the contracting physician or physician group to a health care provider outside the physician's practice group. Risk retained within the physician's practice group is not regulated by these rules

Policing health plans that shift risk

This new HCFA rule only applies when physicians assume "substantial financial risk." This generally means that more that 25% of a physician's anticipated compensation is at risk. For example, if 30% of a physician's capitated payment is withheld and only paid depending on the level of utilization of services provided by others, then the physician has assumed "substantial financial risk." (An exception is made for managed care arrangements covering more than 25,000 Medicare or Medicaid enrollees.)

The new HCFA rule does not prohibit physicians from assuming substantial financial risk. It merely imposes burdens on health plans that use such arrangements in regard to Medicare or Medicaid enrollees. Specifically, where substantial financial risk exists, HMOs and other prepaid health care organizations that have contracts with HCFA or state Medicaid agencies to provide services to Medicare or Medicaid recipients must meet the following requirements:

1. the health plan must conduct enrollee surveys relating to enrollee satisfaction regarding the quality and accessibility of the organization's services;
2. the health plan must ensure that all physicians at substantial financial risk have stop-loss protection in accordance with set requirements; and

3. the health plan must comply with new disclosure requirements.

In this latter regard, all patients who inquire about the financial aspects of an applicable health plan's physician arrangements must be informed of the existence of an incentive plan, the nature of the plan, and whether stop-loss insurance is provided to physicians. A summary report of enrollee satisfaction surveys is also to be provided to such patients on request. Applicable health plans also must inform HCFA of the use of physician incentive plans and fully explain the operation of any plans that place physicians at risk.

Penalties and effective date

The sanctions for failure to comply with this new regulation include federal civil money penalties of up to $25,000 per offense. In addition, violators are subject to possible termination from the Medicare and/or Medicaid Programs.

The effective date of the new rule was May 28, 1996; however, there is a reasonably reliable rumor being circulated by HCFA that the rule's effective date will be changed to January 1, 1997.

This new rule exemplifies the tension inherent in all managed care arrangements. On the one hand, HCFA is turning to managed care to lower costs by lowering the utilization of services. On the other hand, if managed care tools, including financial arrangement, are too effective, then needed services could be withheld. Efforts such as this rule may result in the wider availability of services, but may also impair the ability of managed care organizations to be cost-effective.

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HCFA: Medicare HMO competitive bid test challenged

Michael Preston

A Health Care Financing Administration proposal to conduct a test of competitive bid pricing for Medicare HMOs in Baltimore City and six Maryland counties has been met with resistance from Maryland's congressional delegation and from nearly all affected health care interests.

U.S. Representative Benjamin L. Cardin (D-3rd) stated recently that Health and Human Services Secretary Donna Shalala has given the delegation her commitment that the project will not go forward until "the delegation is comfortable with it." Cardin has arranged a series of meetings between HCFA and affected health care interests, including Med Chi. The first meeting occurred in June and was attended by Cardin, U.S. Senator Barbara A. Mikulski, and U.S. Representative Elijah Cummings (D-7th).

When it announced the project in June, HCFA said it would implement the project beginning in January 1997, coinciding with an effort by the Medicaid program to move more than 200,000 medical assistance recipients into managed care.

Medicare currently pays managed care organizations 95% of the fee-for-service rate. The demonstration project involves a scheme in which HCFA will set a target price; organizations that bid more than that price would not necessarily lose Medicare business, but would charge a premium to patients for the difference.

While expressing support for HCFA's efforts to be innovative in controlling Medicare costs, Cardin and other members of the delegation expressed concern that the demonstration project could upset Maryland's all-payer hospital rate system and could be disruptive coming simultaneously with the Medicaid managed care effort. None of the elected officials expressed opposition to HCFA's concept of testing competitive bidding for managed care, but all expressed concern that Maryland is the wrong site for the project because of the all-payer system and the Medicaid effort.

Mikulski, whose objections to the program were the most strident, said in June, "If I had to vote on this today, my vote would be no."

HCFA representatives asserted that the program was not intended to enroll greater numbers of Medicaid participants in managed care, but only to test the effectiveness of competitive bidding for managed care entities that do accept Medicare patients. The program also would test the effectiveness of using a contractor to enroll Medicare participants in managed care. Industry groups are unconvinced. HMO spokespersons Fran Tracy of BlueCross BlueShield and Tom Barbera of MAMSI said the plans are not prepared to deal with major changes in the Medicare market, particularly with the coming onslaught in the Medicaid environment. Med Chi representative and trustee Joseph W. Zebley, M.D., said the Medicare competitive bidding proposal will have its greatest impact on budding physician groups that have full-risk Medicare contracts.

Call for Instructive Case Reports

The editors of the *Maryland Medical Journal* believe all practicing physicians—generalists and specialists alike—are a fertile source of instructive, experienced-based clinical anecdotes. The most memorable anecdotes illustrate the art as well as the science of medical practice; they teach a lesson that goes beyond the "facts" of the case.

We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission Requirements

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

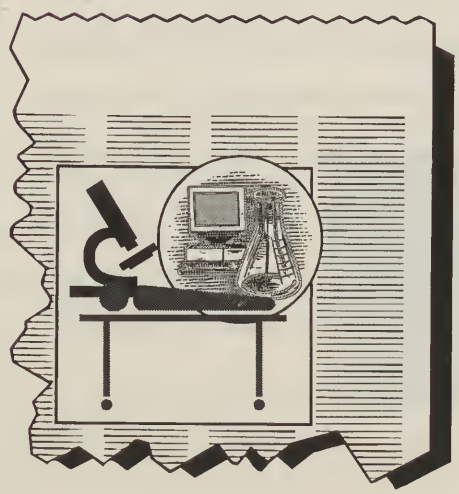
Call for Papers

The Editorial Board of the *Maryland Medical Journal* currently seeks original articles addressing topics related to

- Evidence-based medicine: science or politics?
- Assistive technologies for people with disabilities
- Pre-surgery medical considerations (e.g., in elderly, pediatric, or psychiatric patients; questions before emergency surgery).

Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.

All submissions should conform to Maryland Medical Journal requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor, 1211 Cathedral Street, Baltimore, MD 21201; 410-539-0872 or 1-800-492-1056; FAX 410-547-0915.



The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects),*

Information for AUTHORS

membership and legislative news, continuing medical education notices, and programs and policies of the faculty.

- ***Letter of transmittal***—The letter of transmittal, which all authors must sign, should include the full names, degrees, titles, and affiliations of all authors, and the name, address, and phone number of the author to whom reprint requests and correspondence should be sent.

  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

  In addition, the letter must include a paragraph that transfers copyright ownership to the *MMJ* in the event that the work is published.

- ***Manuscript preparation***—Manuscripts should be submitted to Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585. Manuscripts must be original material not previously published and not under consideration by another publication. An abstract of 100 to 300 words is required.

  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

- ***Illustrations***—Illustrations include material that cannot be set in type. Photographic material must be submitted as high-contrast, glossy prints. Drawings and graphs must be done professionally in india ink on high-grade white drawing paper or be computer generated. Identification—including figure number, the title of manuscript, the name of corresponding author, and arrow indicating top—should be typed on a gummed label and affixed to the back of each illustration. Legends for illustrations should be typed on a separate page with numbers corresponding to those on the photographs or drawings. Recognizable photographs of patients are to be masked and should carry with them written permission for publication. Cost of printing color photographs must be borne by the author.

- ***Permissions***—Material taken from other sources must be accompanied by written permission from both author(s) and publisher allowing the *MMJ* to reproduce the information/figure.

- ***Editorial responsibility***—All manuscripts are acknowledged upon receipt. They are subject to peer review by an editorial board and, at times, by guest reviewers in appropriate fields of medicine, to determine the originality, validity, and importance of the content and conclusions. Authors are usually notified of the status of their papers (acceptance, revision, or rejection) within 4 to 8 weeks of receipt; however, longer delays are sometimes unavoidable. Reviewers' comments will be returned with rejected manuscripts at the discretion of the Editor. All guest reviewers will remain anonymous.

  Accepted manuscripts become the permanent property of the *MMJ* and are subject to copy editing. (The *Chicago Manual of Style* and the unabridged *Random House Dictionary of the English Language* are used as style guides.) The corresponding author is sent a reprint order form and galley proofs. S(he) then has 48 hours in which to make minor changes and clear all corrections and changes with co-authors; if proofs are not returned by the specified date, they will be considered approved as typeset. ■

Checklist

- ☐ Original manuscript and one copy.
- ☐ IBM-compatable disk in WordPerfect, Multimate, Wordstar, or ASCII.
- ☐ Everything double-spaced.
- ☐ Letter of transmittal, signed by all authors, that includes release of copyright, statement of authorship responsibility, title and affiliation of all authors, and identification and phone number of corresponding author.
- ☐ Abstract of 100 to 300 words.
- ☐ Permission-to-borrow letters for any previously published illustrations or tables

Guest Editor's Introduction

Not long ago people perceived sports medicine as a trauma specialty. No longer the sole purview of the orthopedic surgeon or traumatologist, sports medicine today represents a philosophy of care that unites virtually all who come in contact with a health problem of those who exercise or compete in sports. The current managed care trend with its gatekeeper concept has placed increasing obligations on primary care practitioners to be familiar with sports medicine principles. It is an age of increased diversity in sports medicine because the ethical and social implications of sport are being recognized as are the needs of all age groups and special interest groups.

Today's sports medicine consists of at least four major topic areas: supervision of the recreational or competitive athlete; programs for the maintenance of physical fitness; sports and exercise programs for the handicapped; and sports and exercise to rehabilitate those suffering from acute and chronic disease or physical disability.

On the occasion of the commemoration of the Centennial of the Modern Olympiad, it has been a privilege to help create this issue of the Maryland Medical Journal, *"Current Concepts in Sports Medicine Practice: A Guide for the Practitioner." In selecting the topics for discussion, we have tried to recognize the diverse levels of sports medicine, care, and types of health and recreational exercise occurring throughout our state.*

I would like to thank our distinguished panel of contributors for the time and effort required to share their insights as accomplished sports medicine clinicians. I would also like to thank Mary Ann Ayd, managing editor of the Maryland Medical Journal, for allowing sports medicine to have this opportunity to "step up to the plate." I hope the readers will find the contents both useful and inspiring of their own contributions.



Wayne B. Leadbetter, M.D., F.A.C.S.M.

The philosophy of sports medicine care: an historical review

Jason D. Leadbetter, B.A., and Wayne B. Leadbetter, M.D.

ABSTRACT: *Sports medicine might seem a trendy, market driven health care arena serving to promote the welfare of elite athletes and those who care for them. But a closer look reveals a much older ancestral tree with roots at the very onset of recorded medicine and branches that intertwine with every aspect of today's medical treatment. Indeed, the growth of modern sports medicine practice is a complex interwoven chronicle. In the context of an evolving medical understanding of tissue biology and wound repair, advances in scientific technology, and the growth of cellular pathology, mankind's relentless pursuit of sports-play, competition, and health has fueled the rationale of the present sports medicine philosophy of care.*

Mr. Leadbetter, a graduate of University of Maryland College Park, is an accomplished soccer player and triathlete who is pursuing a degree in physical therapy. Dr. Leadbetter is a clinical assistant professor of orthopedic surgery at Georgetown University Medical Center in Washington, DC, and a clinical assistant professor of surgery at the Uniformed Services University of the Health Sciences in Bethesda, Maryland. A member of the American College of Sports Medicine and the American Orthopedic Society for Sports Medicine, he is the medical director of the Shady Grove Center for Sports Medicine and Rehabilitation, a division of the the Orthopaedic Center, P.A., in Rockville, Maryland.

Reprints: *Wayne B. Leadbetter, M.D., The Orthopaedic Center, P.A., 9711 Medical Center Dr., Ste. 201, Rockville, MD 20850*

Since the advent of recorded history, athletics has assumed a unique and intriguing place in the framework of human life and culture. Most historians agree that the concept of sports arose as an offshoot from the basic skills needed for survival and to wage war.[1] Cave drawings such as those at Lascaux and Altamira depict animals as objects of hunting. The human figure is portrayed as being either gored or killed by a bison during the hunt. Between twenty and thirty thousand years old, these paintings represent the earliest records of injury in what are considered by today's standards to be sporting events.[2] As civilization emerged, human intellect and ingenuity shaped the contests of hunting and warring into ritualized games and forms of exercise displaying speed, strength, and skill. The growth of competitive sports also brought with it unique avenues for injury, and athletes had to turn to someone to promote healing and restore a desired level of function. From this beginning, the

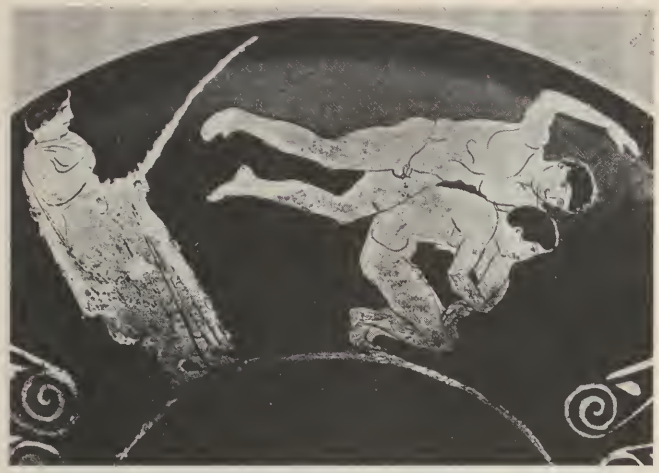


Figure 1. Greek wrestling throw, the *se-oi-nage* of modern Judo, which will cause a heavy fall.[4] *Used with permission.*

interaction between sport and medicine takes its most primitive origin.

Sports medicine in the ancient world

In *Athletics of The Ancient World*, Gardner[1] recounts some of the early history of sport. The tombs of Beni-Hassan (c. 1991-1778 B.C.), located along the Nile between the ancient cities of Thebes and Gizeh, depict early Egyptian sports, including running, swimming, rowing, archery, and wrestling. As early as 4,000 B.C., Egyptian hieroglyphs record the spread of boxing throughout the Nile valley.[3] The first known medical text, the Kahun papyrus, appears in the Middle Kingdom of ancient Egypt, about 1900 B.C.[4] Fractured limbs set using splints and bandages with the oldest recorded blood stains were found on two bodies from tombs of the 5th Dynasty. The medical papyri, including the best known Edwin Smith papyrus, reveal a trend toward magic and away from more effectual medicine.[4] The 5th century B.C. historian, Herodotus, wrote of the Egyptians: "Medicine with them is distributed in the following way: every physician is for one disease and not for several, and the whole country is full of physicians of the eyes, others of the teeth, others of the belly, and others of obscure diseases."[5] Resident medical training specialization was first popularized at The Johns Hopkins University School of Medicine by William S. Halsted, M.D.[6] Herodotus' comment suggests the current dilemma of "too many specialists" is not new.



Figure 2. Hippocratic reduction of dislocation.[14] *Used with permission.*

Ancient Egyptian medicine influenced the development of Greek medicine. Homer refers to Egyptian physicians' skills in compounding drugs; indeed, the word *chemistry* was derived from *chemi* (black land), the ancient name of Egypt.[7] In Homer's time, the Egyptians knew more anatomy and therapeutics than Hellenes. In Mesopotamia, the liver was regarded as the seed of life. The Egyptians, however, considered circulation and respiration to be the vital functions and recognized the heart as the center of the blood vascular system.

The first recorded examples of the interplay between sports and medicine in the ancient world are recorded in Far Eastern culture. Around 1,000 B.C., Hindu *vaidyas* (physicians) are recorded in the Artharva Veda, one of the four sacred texts dedicated to "the science of life," as using exercise to treat various ailments.[8] About the same time, the Chinese wrote of the connection between health of body and mind in the book of Kung Fu.[8] Nevertheless, most treatment was still left to the guidance of religion and mythology.

Perhaps no other society did more to foster the beginnings of modern medicine and its relationship to sports than did the early Greeks. During the rise of the rivaling city states in the fifth and fourth centuries, B.C., emphasis was placed on athletics for two reasons. First, religious beliefs revolved around the holistic concept that integration and development of the body, mind, and soul are necessary to achieve one's potential. Second, athletic competition supplied physically fit soldiers.[1]

It is now believed that the Grecian influence that transformed medicine from a religious and philosophical basis into a quasi-scientific methodological practice did not evolve overnight. It is generally accepted that the development of ancient Greek medical thought included four stages.[5,9]

The primitive period. This era was characterized by instinctual practice coupled with mythological lore. A sick person was considered a sinner. Out of this evolved the concept of *temple medicine,* which involved treatment based on religious suggestions and psychotherapy. This form of medicine was dispensed by cults, who claimed their knowledge was inherited from Aesculapius, the god of medicine. The cult of Aesculapius spread throughout the Greek empire and was introduced into Athens around 430 B.C.

The sacred or mythic period. During the era of Pythagoras (c. 580 B.C.), *gymnasiums* emerged as military training grounds.[10] Perhaps the earliest Greek medical philosopher, although better remembered for his geometric theorem, Pythagoras incorporated regimens of diet and gymnastics to promote health. However, because dissection was considered profanation of the body, the range of treatments was severely limited due to physicians' lack of true anatomic knowledge.[11]

The pre-Hippocratic period. This era was characterized by a new approach: the attempt to give all phenomena natural rather than supernatural explanations.[5] Thales (640-546 B.C.) has been called the "father of science" because his explanations of observed phenomena did not rely on supernatural agency.[5] Numerous "schools" of medicine developed, but medical practice was still carried out largely by itinerate craftsmen.

Throughout the ancient world, medical treatment was restricted largely to external injuries and wounds. Common among these were joint dislocations, the treatment of which was documented in both the Egyptian papyri and the *Corpus Hippocrates*. The classic Hippocratic method of shoulder reduction involved placing the physician's heel in the patient's axilla to provide countertraction to a longitudinal force on the arm,[12] a method still preferred by many clinicians today (**Figures 1 and 2**).

Lacking instruments such as the microscope, the Greeks used a more powerful and potentially dangerous methodology: "What escapes the sight of the eyes can be seized with the sight of the mind."[4] A disease theory emerged centering around four humors: blood, yellow bile, phlegm, and black bile.[4] Different mixtures in the body produced different temperaments: sanguine, choleric, phlegmatic, or melancholic.[13] Philostratus in the third century ruled out the melancholic from sport, but recommended driving the phlegmatic hard in training and restraining the choleric, who would try to train too quickly. The ideal athlete was thought to be of sanguine temperament.[13] Although such a psychosomatic classification may seem primitive, our own sports psychology, which speaks about offensive and defensive mentalities and "choking" or "zoning out" may seem no less primitive to future generations.

Importantly, the Greeks recognized that a *natural balance* was critical. Too much or too little of any component or disharmony of the proportions of the humors defined the "dis-eased" state. Today these theories are dismissed as unscientific, yet it is interesting to reflect that the same concept is now respected as *homeostasis*. Indeed, the study

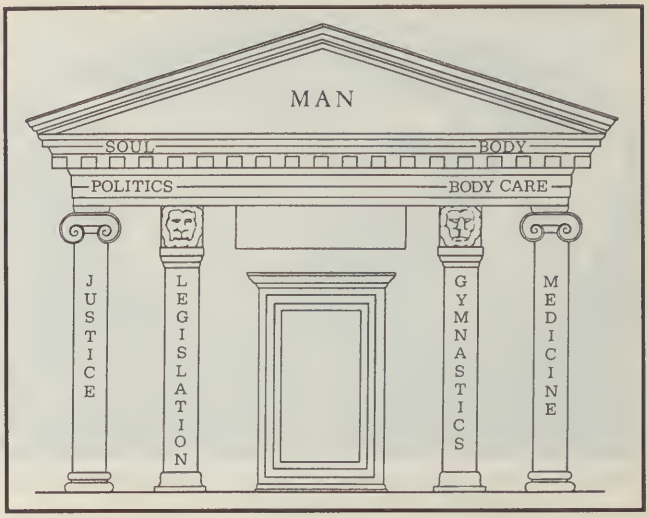


Figure 3. Socratic concept of man; the scheme shows the importance of gymnastics for the Greeks, its position relative to medicine, and the parallel between medicine and justice.[4]
Used with permission.

of the dysregulation of tissue repair or maintainance has become the cornerstone of our understanding of sports-induced overuse injury. It is now believed that such dysregulation or loss of homeostasis due to failed tissue adaptation under the influences of athletic load or stress alters cell-matrix, biopsy, and tissue composition, causing eventual structural failure and clinical injury.[14]

In another forefold symmetry, Socrates made *gymnastics* (fitness exercise) one of the pillars in his conceptual diagram of the "house of man" (**Figure 3**).[4] His juxtaposition of medicine relative to gymnastics is a striking example of the close historical relationship between sport and medicine.[2]

One school that flourished was that of Hippocrates (c. 460-370 B.C.) on the Isle of Cos (**Figure 4**). Hippocrates is largely credited with correlating and enunciating the principles that brought medicine out of the pall of superstition and into the light of science, such as it was (**Figure 5**).[4,5] In a typical passage he wrote, "Men think epilepsy is divine merely because they do not understand it. But if they call everything divine which they do not understand, why, there would be no end of divine things."[15] Under his influence, the patient-oriented history and physical examination became preeminent in diagnosis. Throughout the Hippocratic philosophy is a constant reliance on nature and emphasis on improving prognosis by restoring what was then thought to be the harmony of bodily function.[16] Hippocrates' observation that "healing is a matter of time, but it is also a matter of opportunity" remains the challenge for the ages. The sports clinician and therapist must make good their therapeutic promise to the athlete, namely, that through timely prescrip-

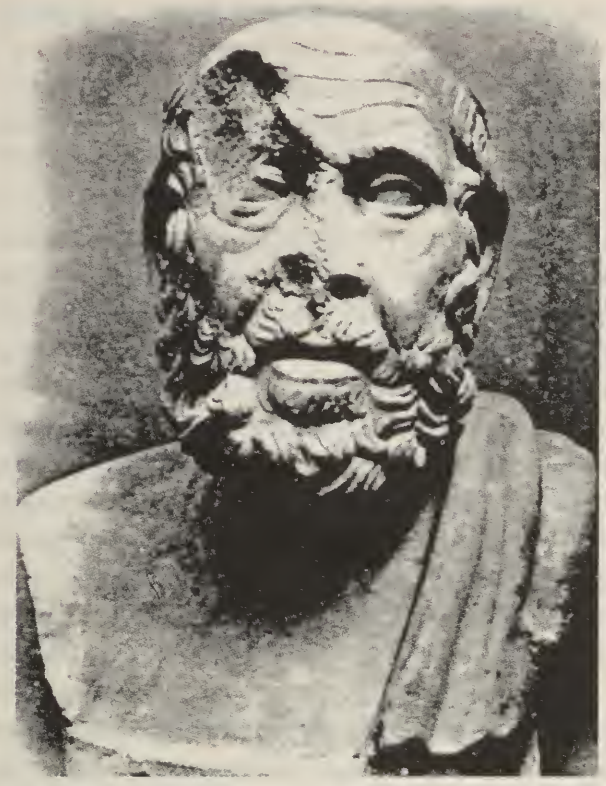


Figure 4. Bust of Hippocrates.[5] *Used with permission.*

tion, rehabilitation, or surgery the recovery from an injury can be improved, the period of disability shortened, and prior performance regained.

The Olympic movement, however, originated well before the Hippocratic era. Every fourth year from 776 B.C. to 395 A.D., the Olympic Festival attracted citizens from all over the Greek and ancient world.[17] Athletes competed in a variety of events phased in over many centuries: running, wrestling, boxing, and *pankration,* a competition combining wrestling and horseracing, chariot racing, the long jump, javelin and discus throwing, and the pentathlon (**Figure 6**). Athletes trained at gymnasiums under the direct supervision of sports physician trainers, or *gymnastes.* The gymnastes were involved in all aspects of an athlete's training and were assisted by massage therapists (*paidotribes*) and bath servants (*aleipetes*) who taught physical exercises and practiced minor surgery.[11] Plato wrote about the gymnastes, including a physician named Iccus whom he called the inventor of "medical gymnastics." Herodicus (c. 400 B.C.), also known as the teacher of Hippocrates, was another famous gymnaste and rehabilitator.[7]

Accidents were common in the gymnasium especially among the boxers and wrestlers, and the gymnastes became very practiced in the treatment of fractures and dislocations. In both the gymnasium and in the *palaistra* (a place usually adjacent to the gymnasium where training, combat, and jumping occurred), athletes not only wrested, jumped, and ran, but tried by systemic practice to remedy any defect or abnormality in a limb or organ. There was usually at least one palaistra in every ancient city from the sixth century until the end of the Roman empire. The treatment accomplishments of the gymnastes is remarkable considering that their knowledge of human anatomy, like that of the great artists of that period, was based solely on observation rather than dissection.[7]

Aristotle (384-322 B.C.), founder of the sciences of compared anatomy and natural history,[5] may be said to have applied to general science the objective method of observation used by Hippocrates in clinical medicine.[18] In doing so, Aristotle took another profound step away from ecclesiastical medicine and toward the secular deductive methodology of biological science. However, ancient understanding of human physiology, especially inflammation and wound repair, remained less sound.

The anatomic period. This era was built on the principles of Aristotle. During this time, Claudius Galen (138-200 A.D.) became chief physician to the gladiators.[18] The gladiators are thought to have been the first professional sports competitors and Galen's surgical services made him the first "team physician" of record.[7] Galen was also well known for recording the fundamentals of exercise physiology. He recommended, as did Aristotle, moderate therapeutic exercise for the treatment of many forms of disease. In his two works, *Health—The Concern of Medicine and Gymnastics* and *Exercises with a Small Ball,* Galen discussed the relationship of health, medicine, and gymnastics (i.e., fitness exercise) and tried to establish a lasting union between sport and medicine that would prove accessible not only to professional athletes, but to "weekend warriors."[13]

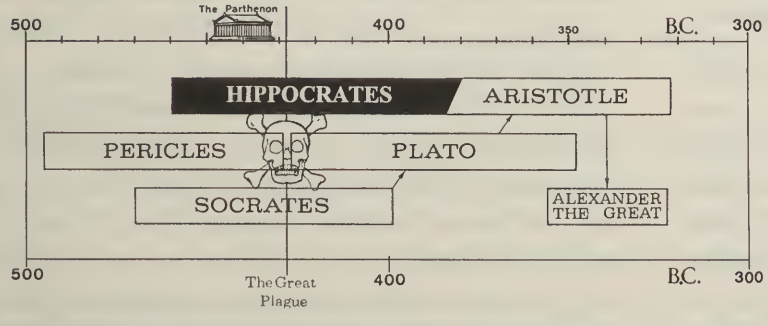


Figure 5. Life span of Hippocrates.[4] *Used with permission.*

The medieval era

In the Western world, the medieval period saw a restriction of the growth of medical

Dates for the introduction of events

Olympiad	Year, BC	Event
1	776	Stade-race (short foot-race)
14	724	*Diaulos* (double-length foot-race)
15	720	*Dolichos* (long-distance foot-race)
18	708	*Pentathlon* and wrestling
23	688	Boxing
25	680	*Tethrippon* (four-horse chariot-race)
33	648	*Pankration* (type of all-in wrestling) and horse-race
37	632	Foot-race and wrestling for boys
38	628	*Pentathlon* for boys (immediately discontinued)
41	616	Boxing for boys
65	520	Race-in-armour
70	500	*Apene* (mule-cart race)
71	496	*Calpe* or *anabates* (race for mares)
84	444	*Apene* and *calpe* discontinued
93	408	*Synoris* (two-horse chariot-race)
96	396	Competitions for heralds and trumpeters
99	384	Chariot-racing for teams of four colts
128	268	Chariot-racing for teams of two colts
131	256	Races for colts
145	200	*Pankration* for boys

Figure 6. Games of the ancient Olympiad.[17] *Used with permission.*

science and a return to religious dogma. Little is recorded of organized sport other than that practiced by royalty. The knowledge established by the Greeks and Romans was preserved by the Byzantine Empire, however, and passed along to the Islamic culture in the Middle East.[8] The tenth century Islamic physician Avicenna advocated the use of medical gymnastics, massage, and warm baths to promote rehabilitation from injuries.[19] He documented the available medical literature of the time and correlated it with the writings of the ancient physicians. The Crusades brought Avicenna's work back to the West, where his contributions influenced the thinking of the Renaissance.

Beginning of the modern sports medicine tradition

In the fifteenth and sixteenth centuries, the lamp of medical knowledge was relit. The higher authority of a distant, vengeful God was supplanted by that of the natural world itself.[5] Inspired by anatomic depictions by Leonardo da Vinci (1452-1519) and Michelangelo Buonarroti (1475-1564), Brussels anatomist Andreas Veslius (1514-64) created *De Humani Corporis Fabrica* (1543), a book that not only revolutionized anatomy but scientific teaching in general. Following the invention of moveable type, the first printed book on exercise written by a physician was that of Cristobal Mendez of Jaen, Spain, in 1553.[19] Ever since, the media have had a profound role in both the dissemination of medical knowledge and the popularization of sport itself.

Starting in the fifteenth century, Muslim translations of the Greek and Roman heritage brought a renewed interest in the value of exercise to European physicians. In Italy, Vittorino da Feltre (1378-1446) made sports and physical exercise an integral part of the educational curriculum for young school children. Geronimo Mercuriali (1530-1606), a professor of medicine, proposed a balanced approach between physical and mental education to achieve health. His *Artis gymnasticae apud antiguos celeberrimae nostris temporibus ignoratae*, published in Venice in 1569, is believed to be the first illustrated book on sports medicine.[20] In France, Ambriose Pare (1510-1590), a leading surgeon, emphasized the importance of exercise of the limbs following primary treatment of fractures. His observation was the forerunner of the present standard of care, which stresses early mobilization of joints, avoidance of muscular atrophy, and earlier return to protected activity after sports injury.[20] He also characterized specific exercises to achieve different purposes and supported Galen's theories that the body needs exercise to maintain health. Another French physician, Laurent Joubert (1529-1583), agreed, introducing therapeutic exercise into the medical school curriculum at the University of Montpellier.[8] He believed physicians should be the ones responsible for recommending rehabilitative exercise because only they had the necessary knowledge to describe it correctly. Today, it is ironic that many physicians have turned their backs on such responsibility and remain ignorant of sports rehabilitative principles, while qualified orthopedists have been barred from carrying out and supervising such treatment by current health care legislation.

The seventeenth century represents a major turning point in the history of science. Instead of asking *why* things occur, scientists began asking *how*. The emphasis shifted from speculation to experimentation,[5] interpretations became mechanistic, and the language of science became mathematical. Elaborating on Galen's knowledge of muscle tone and antagonistic actions of muscles, Borelli (1608-1679) described the root of muscular action and identified the muscles responsive to nerve impulses. This important step in discovering why and how humans move would in turn focus therapeutic medicine on ways to return an injured body to normal function. Subsequent breakthroughs in diagnostic

and therapeutic thinking depended on the parallel development of scientific technology.

The first objective measurement of inflammation, the thermometer, was invented in 1592 by Galileo and refined in 1870 by Thomas Clifford Albutt.[5] The microscope, however, allowed the science of cellular pathology to arise. Although its origins probably date back to the Middle Ages, Anthony Van Leeuwenhoek (1632-1723), a cloth merchant from Delft, Holland, refined the instrument and discovered blood corpuscles spermatozoa in the striaded characteristics of skeletal muscle. The botanist Robert Hook (1635-1703) is credited with the first reference in science to the cell: "little boxes or cells distinct from one another."[5] In 1687, Marcello Malpighi (1628-1694), considered the founder of biologic microscopy, demonstrated the presence of capillaries in the lung of the frog, thereby verifying the blood circulation theory of William Harvey (1578-1657) and establishing the scientific basis for the vascular response of posttraumatic inflammation.[5]

An important transitional figure in this age was the English surgeon and experimenter John Hunter (1729-1793), who called attention to the nonspecificity of the process of inflammation and clearly established that the traumatic inflammatory response is essential to the initiation of wound repair. "The operation of the body called inflammation is one of the most common and extensive in its effects . . . and in so many diseases is the first step to a cure . . . ."[21]

Realizing that all sports injury falls under the classification of wounding, it is easy to see the common dilemmas the sports clinician faces in treating both athletic and nonathletic injuries. Open wounds (e.g., compound fractures and lacerations) occur regularly in sports competition. Acute injuries and a variety of overuse synovial inflammations, contusions, muscle strains, and ligament sprains constitute most of what is treated in traumatic sports medicine. Like their predecessors, modern clinicians are greatly concerned about controlling inflammation and its excessive adverse effects on athletic function.[22] The rationale of modern sports medicine care is rooted in the history of our understanding of both the pathophysiology of inflammation and normal wound healing.

Brief history of sports-induced inflammation and wound healing

Written medical history began with the Sumerians about 3100 B.C. The Sumerian term *ummu*, the "hot thing," is the first recorded equivalent of inflammation.[4] Lacking the insights of Louis Pasteur (1822-95) and the surgical antisepsis of Joseph Lister (1827-1912), the ancients classified wound healing by either *first intention* (i.e., without complication of infection) or *second intention* (evidenced by pus). Thus, early physicians recognized that satisfactory healing of an open wound depended on a sufficient bodily defense to repel infection. A white, or creamy kind of pus, rich in polymorphinonuclear cells, was "preferrable" because it indicated infection was being fought effectively. Hence its ancient Latin name, *pus bonum et laudabile* (good and laudable pus).[4]

The Alexandria encyclopedist Cornelius Celsus (c. 14-37) recorded the four cardinal signs of acute inflammation: redness and swelling with heat and pain (**Table 1**).[4] Based on this historic association, pain assumed a disproportionate role in the definition of inflammation, such that any painful structure is immediately presumed inflamed. With the advent of more accurate, noninvasive assessment of soft tissues and the accumulation of surgical biopsy evidence, it is now clear that the source of connective tissue pain is multifactorial. In the case of the overuse-induced degeneration of a sports-injured tissue, such as tendon, the dominant pathology is often structural rather than inflammatory. It is therefore not surprising that the antiinflammatory treatment of chronic sports injury, used alone, is unsuccessful.[22]

The Greeks conceptualized the body circulation as a network of small veins that ended like the roots of a plant in a dead-end plumbing system. Hence, wounds caused the spilling of blood, from which directly sprang pus and eventually tissue "rotting."[4] These incorrect observations nevertheless led to a correct presumption in treatment that still has scientific rationale today. The Greeks used posttraumatic local compression to reduce excess hemorrhage.[5] Today,

Table 1. Cardinal signs of inflammation[24]

Heat, *calor*	metabolic radiant energy
Redness, *rubor*	increased vascularity (angiogenesis) and blood flow
Swelling, *tumor*	extracellular edema and matrix changes
Pain, *dolor*	stimulation of afferent nerve endings by noxious mediators
Loss of function, *functi laesa*	decreased performance caused by direct damage or inhibiting pain, edema

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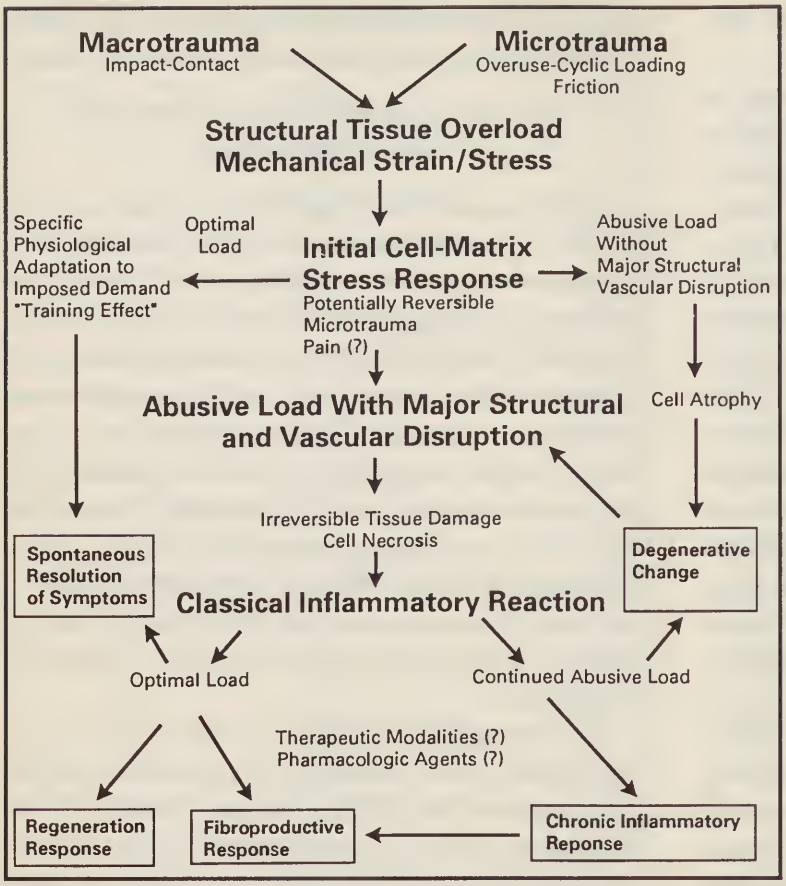


Figure 7. Sports-induced inflammation pathways.[22] *Used with permission.*

excess hemorrhage is still recognized as one of the disabling events surrounding acute tissue injury, which together with local soft tissue edema produces areas of relative ischemia, secondary hypoxia, and further proteolytic enzyme destruction of surrounding tissues, the so-called zone of secondary injury. Attention to these events in the acute injury response treatment is emphasized in the mnemonic PRICE (protection, rest, ice, compression, elevation). Hippocrates had harnessed the principles of scar formation and postinflammatory wound contracture (by applying cauterization). Regarding recurrent shoulder dislocation, he wrote, "In this way the cavity into which the humerus is mostly displaced is best scarred over and cut off."[16] The Hippocratic cauterization method of treating recurrent dislocation of the shoulder undoubtedly represents one of the earliest efforts to direct and harness the pathophysiology of inflammation to achieve a specific therapeutic goal.[19]

Galen reiterated that excessive inflammation was not always required for successful wound healing: "Those who believe that inflammation necessarily follows a wound show great ignorance since it is possible for anyone to see that even large ones reach the state of being practically healed in two to four days without inflammation."[21] One can only presume that the wounds Galen described were fortunate to remain relatively uninfected.

Like other wounds, an athletic wound is a disruption of normal anatomic structure and function and represents a loss of cells or extracellular matrix resulting from some type of trauma. Although there is much overlap, wounds are generally characterized by their mode of onset, mechanisms of injury, and progression of healing. The cascade of events that occurs after acute injury currently is better understood than the processes involved in the activating mechanisms and subsequent processes that control the outcome of chronic injury. It is now understood that vascularization is not the source of infection, but the avenue by which inflammatory and repairative cell populations arrive at a wound; as such, it is an absolute requirement for the initiation of healing and repair.

Sports-induced inflammation is now known to be localized tissue trauma response initiated by injury or destruction of *vascularized* tissues exposed to excessive mechanical load or use. It is a time-dependent evolving process characterized by vascular, chemical, and cellular events leading to tissue repair, regeneration, or scar formation. Sports-induced soft tissue inflammation may resolve spontaneously or evolve into a chronic inflammatory response (**Figure 7**).[14] The treatment of microtraumatic-induced chronic injury to both bone and soft tissues is a common challenge in sports medicine.

Emergence of cell pathology and cell molecular biology

The answer to age-old dilemmas and avenues of new therapeutic intervention required the discovery and understanding of the cell. Rudolph Virchow (1821-1902), the father of modern pathology, announced that "all cells come from other cells," thus directing medical science to the concept that disturbances in the interrelationship and function of the body's cells produce disease. He thought the primary disturbance in inflammation was the cellular edema (cloudy swelling) produced by noxious substances. He described a fifth cardinal sign of inflammation: *functia laesa*, or "disturbed function." Describing this sign, which is now paramount in sports medicine treatment and rehabilitation, Virchow wrote, "Nobody would expect a muscle that is inflamed to perform its function normally."[23] His observations opened the door to a whole new rationale for both

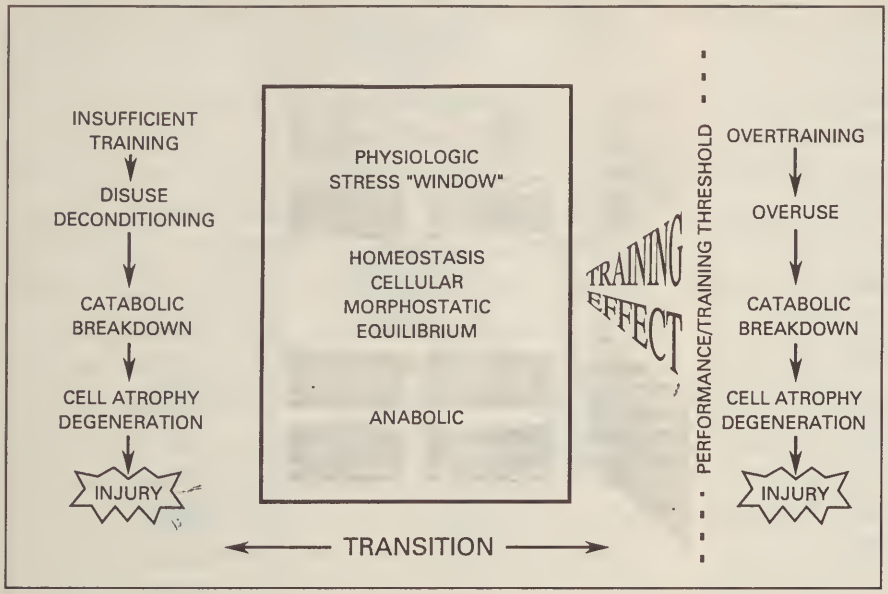


Figure 8. Transition theory; the more rapid the transition, the greater the risk.[22] *Used with permission.*

effective treatment and also the scientific basis of athletic training. How fitting that one of the "founders" of sports medicine was also a cellular pathologist.

The theories of cell biology and evolution that arose in the nineteenth century formed the catalysts to convert biology from an observational pastime to an active experimental science. In 1839, some 200 years after Robert Hook had discovered cells, Theodor Schwann described this construction of tissues. As Mathias Jacob Schliden noted, "Each cell leads a double life, one independent pertaining to its development, the other intermediary since it has become an integrated part of a plant."[24]

The late 1800s and early 1900s saw the elucidation of what is now known as Mendelian inheritance; the identification of chromosomes as the carriers of the Mendelian units of heredity; the recognition of the linear arrangement of genes on the chromosome; and the discovery of protein in polypeptide structure as the building blocks of cells and tissue matrix. The merging of genetics and biochemistry with the work of Vidal and Edward L. Tatum led to the conclusion that genes somehow control protein (enzyme) structure, an observation that led directly to the studies of the chemical structure of a gene—the first step in elucidating the molecular basis for the genetic control of protein synthesis. Modern molecular cell biology was initiated in 1953 when James D. Watson and Frances H.C. Crick deduced the double helical structure of DNA. With the molecular code finally broken, advancing research technology such as electron microscopy and recombinant DNA has revealed specific relationships of genes to enzymes in metabolic pathways as well as disease.[24]

In 1859, Charles Darwin proposed the theory of natural selection. However, it has become increasingly clear that in its most elemental terms, he had described the phenotypic expression and resulting population dynamics of a wide variety of living species that have been called "gene survival machines."[25] We continue to struggle with the logic of Darwin's survival of the fittest. Dawkins chides: "We humans have purpose on the brain. We find it difficult to look at anything without wondering what it is for—what the 'motive' or the purpose behind it might be . . . . So long as DNA is passed on it does not matter who or what gets hurt in the process . . . . Genes don't care about suffering, because genes don't care about anything!"[25]

These observations have direct relevance to the present philosophy of sports medicine and to all of medical care. Inflammation in the human athlete may be the required ignition for adequate tissue healing, but this complex sequence of cellular and chemical reactions only represents the present state of evolution in the human body's ability to withstand injury. By comparison, the salamander is far more sophisticated: although humans must rebuild with the scar, the salamander grows a new appendage that is identical in form and function! Scar repair is a relatively quick and dirty way of restoring tissue integrity that circumvents issues of energy consumption and time in larger organisms.

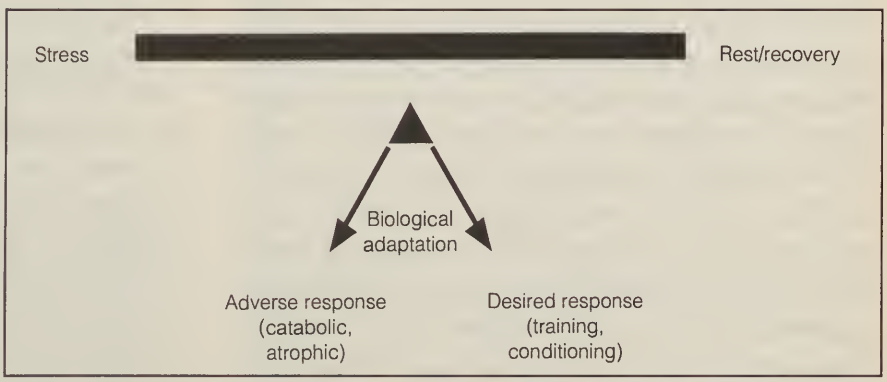


Figure 9. Selye gas theory.[22] *Used with permission.*

There is no evidence that the phyllogenetic evolution of human wound repair has ever been influenced by such goals as athletic competition or recreational exercise. The pain of inflammation is counterproductive to the athlete's purpose, the outdated view "no pain, no gain" notwithstanding. Healing, as Hippocrates noted, is indeed a matter of time—the one commodity the athlete never has enough of or patience with. The mind may be willing and have some power over the outcome, but ultimately how we heal after injury is in the control of the gene. Whether attempting to return to work or the football field after a sprained ankle, anyone who has sustained such an injury will understand these constraints.

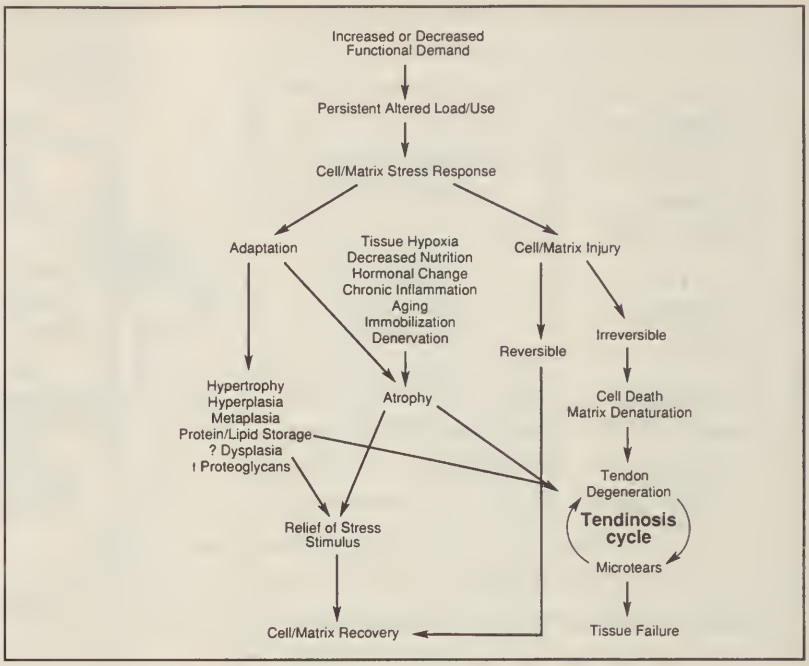


Figure 10. Failed adaptation of tendon.[14] *Used with permission.*

A new sports injury pathophysiology

In 1870, the French physiologist Claude Bernard (1813-1878) emphasized the constancy of the internal environment (milieur interieur) as the condition that "life should be free and independent."[5] Describing the process by which physiological mechanisms resist any external factors tending to alter the internal state in warm blooded organisms, American physiologist Walter Cannon coined the term *homeostasis*.[7] Wolf attempted to describe in mathematical terms the pattern by which calcified tissue responds to load. Wolf's law essentially states that loading stimulates bone deposition and strength and unloading results in weakening due to a loss of structural mass (i.e., form follows function).[7] This observation poses an elemental problem shared by an astronaut in the gravityless environment of space and an athlete immobilized in a cast. Current evidence suggests that all cell matrix systems (i.e., tissues) follow the basic premise of form follows function. For instance, tendon structures are subject not only to tensile load but high compressive forces. Such compression occurs extrinsically at sites of pulleys or bony prominence; intrinsic compression is the result of a cyclic torque load as might be seen in the Achille's tendon secondary to pronation of the foot, in the anterior cruciate ligament during the rotatory movement of the knee, and in the rotator cuff of the shoulder during torque about the shoulder. Vogel[14] demonstrated an accumulation of large molecular weight proteoglycans in regions of human posterior tibial tendon at the level of the medial malleolus, suggesting there is a synthetic stress response as a physiologic adaptation to compressive forces. Similar findings were noted in anterior cruciate ligament tissue, as well as in bovine flexor tendons where fibrocartilaginous matrix metaplasia is a common finding. Analyzing the mechanical properties of tendon and ligaments, Woo[14] theorized an ideal homeostatic level of stress and strain to maintain mechanical properties and tendon mass. Leadbetter's *principle of transition* states that sports injury is likely to occur when the athlete experiences any rapid change in the use of the involved part (**Figure 8**).[14]

In 1950, Selye postulated that stress to biological systems promotes adaptations that may be desirable or undesirable (**Figure 9**).[26] Defining his theory of general adaptation syndrome,[9] he later refined the concept such that *stress* as the term is still commonly used is not the *cause* but the *response* to some demand, such as increased physical activity. He not only created a whole diagnostic category of illness—psychosomatic disease—but laid the foundation for modern athletic sports and physical training.[21]

In the lore of ancient Greece, the Olympic athlete Milo of Croton was determined to become stronger. Every day, he picked up a calf, raised it above his head, and carried it around the stable. As the calf grew, so did Milo's strength. Eventually he was able to lift the full-grown cow. Milo reputedly became the strongest man in the ancient world, winning the wrestling contest five times. He had intuitively grasped one of the basic tenets of contemporary sports science: that progressive resistance training—stimulating muscles with steadily increasing loads—results in an advantageous adaptative response.[27] The athletic ap-

plication of Selye's theory was reenunciated by Allman as specific adaptation to imposed demands (SAID).[21]

Loading and use are primary mechanisms by which connective tissue change occurs in response to sports activity. Mounting evidence suggests that load can profoundly affect both cell and matrix biology.[28] Cells transduce these mechanical signals via a complex interaction of cell membrane receptors (e.g., integrins) that detect surrounding matrix strain, or deformation, and through the process of signal transduction, change a mechanical stimulus to a biochemical signal to the nucleus producing a gene response. A wide range of cellular responses to load have been documented, including changes in collagen fiber size; changes in material strength and stiffness of ligaments and tendons; alteration in synthesis of matrix proteins; increased cell replication rates; and modification of the distribution and production of surrounding matrix components, particularly in articular cartilage. Interest centers on the discovery of the balance point between synthesis and breakdown. Implicit in this theory is the concept of *tissue homeostasis* or tissue morphostasis: the process of continued connective renewal under conditions of physiologic stress. As a corollary, load or use is a basic requirement of normal tissue maintenance, as was correctly deduced by the ancient physicians and philosophers.

Overtraining is a major cause of maladaptation, a disadvantageous change in an organ or tissue. Overuse injury occurs when a structure is exposed to repetitive force beyond the abilities of that specific structure to withstand such a force. Overuse injury may occur at the tissue level or the clinical level. Tissue level or overuse injury occurs at the point at which loss of tissue homeostasis results in loss of cell matrix integrity, leading to degeneration (i.e., to a lower level of tissue functions). In tendon, this process leads to tendinosis (**Figure 10**). This may be either asymptomatic or symptomatic. Clinical sports overuse injury is defined as the point at which the damage of cells or matrix resulting from overuse or abuse of exercise becomes symptomatic to the athlete or produces a loss of function. In this context, all injury can be interpreted as a failure of the adaptations.[28]

The societal and organizational growth of sport and medicine

The rapid rise in the 1800s of industrialization and urbanization were the basic causes for the rise of sport. According to Betts, "Urbanization brought forth the need for commercialized spectator sports, while industrialization gradually provided the standard of living and leisure time so vital to the support of all forms of recreation."[29] Cricket grew from an exclusively aristocratic sport to a middle class pastime in the organization of rugby and association football.[13] The United States contributed its own brand of football, baseball, and basketball. Ice hockey emerged in Canada. The rise of commercially successful sports created a surge in spectatorship, and the preeminence of American football conscripted the orthopedic surgeon as a team physician, much as Galen was drawn to the gladiators.

The first English publication dealing with sports medicine appeared in 1898 in the *Encyclopedia of Sport* by J.B. Byles and Samuel Osborne.[19] In addition to outlining practical measures of emergency treatment, Byles and Osborne described injuries sustained in a variety of competitive sports and how to manage them. The first comprehensive description of the modern concept of sports medicine was *Hygiene de Sport,* a book by Siegfried Weissbein published in 1910.[19] In 1938, Dr. Augustus Thorndike of Harvard published *Athletic Injuries, Prevention Diagnosis and Treatment,*[8] the first general American text of sports medicine; it still serves as a model text.

The advent of private and public transportation brought a paradoxical decrease in daily exercise. During the Industrial Revolution, human labor accounted for 30% of the energy used in factories and farms. Now it accounts for less than 1%.[21] In an attempt to reverse this sedentary trend, cardiologist Kenneth Cooper's aerobic exercise and fitness philosophy made jogging and aerobic dance household words in the 1970s. The 1970s and 1980s saw an epidemic of soft tissue aches and pains and inflammations, loosely defined as sports injuries, that fueled the need for sports medical care. In 1968, in an article on running and the causes of shin splints, Slocum and James originated the term *overuse injury.*[22] A 1995 survey of the top 10 most popular sports in the United States (**Table 2**) would imply a high level of recreational exercise and fitness. The latest statistics on physical activity and health of the American public, however, remain discouraging. More than 60% of American adults currently do not get enough physical activity every day to stay healthy, and 25% get no exercise at all according to the first Surgeon General's report on physical activity and health. An estimated 250,000 deaths in the United States, or roughly 12% of total mortality, can be linked to the lack of regular physical exercise.[30]

The first use of the term *sports medicine* to describe an area of research and clinical practice centering around the performance of athletes appears to have occurred in 1928 during the second Olympic winter games in St. Moritz, Switzerland.[19] At that meeting, the Association Internationale Medical Sportiff was formed. Later renamed Federation

Internationale De Medecine Sportiff (FIMS), it has remained the world authority in international sports, providing recommendations on the science of training, medical treatment, and safety. Shortly after World War II, FIMS was recognized by the International Olympic Committee and the World Health Organization as the international organization for clinical and scientific aspects of sports participation.[19]

In 1935, in response to the increasing concern about the inadequate physical fitness of young men recruited in the English armed forces, the Central Counsel of Physical Recreation was founded to promote physical fitness in the general population.[13] The American College of Sports Medicine was formally organized in 1954. In the early 1950s, the National Athletic Trainers Association (NATA) was founded. The President's Counsel on Physical Fitness was initiated in 1956. In 1960, The American Medical Association appointed a Committee on the Medical Aspects of Sports.

In 1978, Congress mandated the United States Olympic Committee (USOC) as the legal unifying force in amateur athletics.[31] The USOC assumed jurisdiction over the respective national governing bodies through a review and approval of their procedures for selecting their international delegation and subsequently the management of the United States teams at the Olympic and PanAmerican Games, the World University Games, and the National Sports Festivals. The two basic missions of the clinical services of the Sports Medicine Division of the USOC are to provide competent medical attention to athletes at the Olympic training centers and at the competitive events for which the USOC has responsibility. The first modern Olympiad was held in Athens in 1896 with eight countries competing in 42 events in 10 sports.[32] At the 1996 Atlanta Summer Games, about 10,000 athletes represent 197 countries. The United States Olympic Medical Team includes 12 physicians from primary care and orthopedics, 1 chiropractor, and 31 trainers.[35]

During the last half century, technology has become increasingly focused on the scientific principles of training and exercise physiology. As in the original Socratic holistic concept, the new ideal of science and sports medicine attempts to maximize the athlete's potential by providing the best environment to develop the knowledge and attitude necessary to achieve a singular goal in body, mind, and spirit and to regain what was once a common ethic in ancient Olympia.[33]

Thus, exercise physiologists and coaches draw on new scientific knowledge to help athletes develop a balance of muscular and metabolic fitness. Mechanical experts use computers, videos, and specialized sensors to study the dynamics of movement. Design engineers incorporate advances, materials, and aerodynamics to fashion better tennis racquets or racing bicycles. Sports psychologists build confidence through mental training techniques. The integration of these approaches affords the critical small gains in performance that translate into victory.[27]

Table 2. Top 10 sports in the United States in 1995

By number of injuries reported

Basketball	693,933
Bicycling	599,874
Football	390,180
Snow skiing	330,000
Skating (all types)	322,311
Baseball	219,023
Soccer	157,251
Volleyball	86,603
Hockey (all types)	77,140

By number of participants

Exercise walking	64.4 million
Swimming	61.5 million
Bicycling	47.9 million
Fishing (fresh water)	45.3 million
Camping	42.7 million
Bowling	41.3 million
Exercising (with equipment)	34.9 million
Basketball	29.6 million
Aerobic exercise	24.3 million
Golf	22.6 million

Source: National Electronic Injury Surveillance System of the Consumer Product Safety Commission. The Washington Post, 1995.

The first modern definition of sports medicine was perhaps coined in 1958, at the founding of the Institute of Cardiology and Sports Medicine in Cologne, when Professor Wildor Hollmann, the current President of FIMS, said, "Sports medicine included those theoretical and practical branches of medicine which investigated the influence of exercise, training and sports on healthy and ill people, as well as the effect of lack of exercise, to produce useful results for prevention, therapy, and rehabilitation."[19]

In 1981, Dr. David Lamb, then president of the American College of Sports Medicine, advanced the concept of a sports medicine "umbrella" composed of both clinical and scien-

tific "ribs." During the late 1970s and early 1980s, the primary care specialists (family physicians, internists, pediatricians, and orthopedic surgeons) were the pioneers in the formalization of the discipline of sports medicine. In sports medicine, four boards (family medicine, pediatrics, internal medicine, and emergency medicine) offer certificates of added qualification.[34] Almost every medical discipline and allied health care provider has laid claim to the care of the athlete. Specialty and multispecialty sports medicine organizations abound across the world. There are now more than 100 journals or published bulletins relating to the fields of sports medicine and sports science.

Sports medicine—a philosophy of care

To practice sports medicine successfully, one must embrace its philosophy. Implicit is a willingness to see value and health benefit in sports play. While not condoning destructive or abusive behavior, the sports medicine care giver must seek to empower the athlete. For if sports medicine is about anything, it is about the return of function and athletic performance. It is about achievement, both for self and the team, even while facing the adversity of injury. It is from the trusting bond of common purpose established between the clinician and patient at the moment of the first interview that a successful program of treatment and recovery will grow.

Today, in a medical world that frequently waffles on its priorities due to societal and political priorities, quality sports medicine steadfastly demands adherence to Hippocratic precepts. According to David Joyner, M.D., chairperson of the USOC Sports Committee and head physician for the 1996 Atlanta Olympic Games, "The most rewarding part of Olympic medicine is that it is a patient driven system. The system is not driven by insurance companies or managed care; your only interest is to do the best for your patient. With managed care, we have lost something from the doctor-patient relationship. In Olympic medicine, we don't have these distractions and the doctor's whole goal is the patient's well-being, barring anything else. It is medicine as it was "meant to be."[35]

The key steps in managing all athletic injury are:

- to establish an accurate and complete diagnosis of all the anatomic and dysfunctional components of the injury;
- to minimize the deleterious local effects of the injury by controlling excessive inflammation and secondary tissue damage;
- to allow progressive anatomic healing of the injury;
- to maintain other components of athletic fitness; and
- to regain previous athletic function.[22]

When the injured athlete presents for consultation, five basic questions must be answered to satisfy the "physician/patient contract."

- Is the problem serious?
- What is the anatomic diagnosis?
- What treatment is required?
- When can sports or exercise activity safely resume?
- How can recurrence be prevented?[28]

Answering these questions requires a skillful blend of talents: inquiry, observation, physical examination, clinical judgment, medical or surgical skill, and communication. The successful clinician must use practical solutions, instill confidence in the patient, reassure, and encourage proper expectations. Familiarity with the athlete's sport, playing conditions, and training demands is often paramount to being able to analyse the pathoetiology and to prescribe effectual behavioral modification or return-to-sport guidelines after injury. Although some of this knowledge can be imparted through formal teaching, preeminent sports medicine clinicians usually acquire it the old fashioned way—by earning it through the experience of playing sports, being actively involved in fitness, associating with teams, and seeking preceptorships in sports medicine. Far from being a restrictive subspecialization, sports medicine is a powerful, holistic, accomplishment-oriented philosophy that now extends from the playing field to the workplace.

Sports medicine care is about telling injured athletes what they need to know, not want they want to hear. It is not only about the professional and the elite, but about the child, the physically challenged, and the master's competitor. It is about avoiding abusive nonoperative care and using well-timed operative care to conserve function. It is about quality physical rehabilitation, not temporary symptom relief.

The future

Like their ancient forebearers, modern practitioners are the linchpin for prescribing, encouraging, and urging compliance with health-maintaining physical exercise. In the future, sports medicine will be expected to help bridge the gap between science and practice to enable physicians, coachs, therapists, or trainers to better fulfill their obligations to the athletes under their care.

Achieving better knowledge requires better science and better epidemiology. True scientific methodology demands the logic of hypothesis, data collection and testing, reproducibility, consistent explanation, and control.[15] Today, sports medicine treatment often remains locked in retrospective, uncontrolled opinion. In a meta-analysis of 185 articles

published since 1966 on the treatment of tennis elbow, only 18 studies were randomized and controlled.[36] The authors concluded that scientific evidence is insufficient to support any of the current methods of treatment and that the natural outcome of the injury is unknown. Current discussions of treatment efficacy and clinical outcome, stimulated by concerns for medical care costs, invariably reveal how much is still to be learned about the timing, dose, and methodology of many popularly advocated therapeutic measures.

In the intellectual saga of sports medicine, ancient observation of the whole evolved to microanalysis of the cell and has now returned to application of these cellular insights to the body as a whole. Nowhere will this insight be more urgent than in care of the aging athlete. The population of the world is aging at an accelerating rate. In 1900, the number of people aged 65 and older constituted less than 1% of the total population. By 2050, that number will expand to at least 2.5 billion, about one fifth of the world's projected population.[37] Assuming even limited participation in exercise and athletic activity, such a demographic trend assures that the challenge of improving the healing and recovery of aging athletes will be a continued responsibility. This takes on added importance in view of recent studies indicating it is never too late to improve your fitness level. Men aged 60 and older who improved their fitness had death rates 50% lower than those who remained unfit.[38] In competitive sports, there are now even 90-year-old age group tennis championships.

The technology of sports medicine marches on. Although arthroscopic surgery unquestionably has revolutionized orthopedic care, the utility and costs of it and other noninvasive diagnostic tools such as magnetic resonance imaging (MRI) continue to be debated. Yet sports medicine is on the verge of even greater scientific and biotechnologic strides. Tissue synthesis, stem cell transplantation, genetic engineering, and gene retroviral transfection are but a few of the advances promising to revolutionize the prognosis of sports-induced inflammation and athletic injury.[39]

How will the cost be justified and who will pay? The insurance industry currently acts as if sport does not exist. For example, when a runner presents with refractory tibial pain and tenderness, the current practice is to order a bone scan or MRI. Insurance pays most of the cost, not the patient, who has come seeking a diagnosis with a competitive urgency. An alternative to scanning, that would be in the public interest (but maybe not the individual's), would be to give up exercise for six weeks without seeking the diagnosis. There is very little incentive for this at present, but that could change if there was risk rating in insurance and the confirmed diagnosis of a stress fracture instantly put a patient in a higher risk category and increased his or her insurance premiums. Some predict this will eventually happen. Computers and data bases will allow for cost savings, but whether clinical practice will be improved is uncertain.[40]

Pasteur said, "Science knows no country." The same could be said for sports medicine, which increasingly has become a global community. In traveling, one is struck not so much by the dissimilarities of athletic care, but the similarities. Although venues change, the human body is the same tool for athletes regardless of their continent of origin, and practitioners from all over the world face the same clinical dilemmas.

Is life a microcosm of sport or is sport a microcosm of life? Sports seem to compete for our very soul with offerings of violence, excessive spectatorship, vicarious participation, promises of health and fitness, and opportunities for fun and play. Sports are at once an opportunity for enjoyment or anxiety, success or failure, self-worth or despair. Indeed it is this Shakespearean tension of sport with its "thrill of victory and its agony of defeat" that forever holds our attention. The appeal of sports medicine also derives from the communal opportunity to once again experience the sacredness of a special place and time. As the late baseball commissioner A. Bartlett Giamatti wrote, "The gods are brought back when the people gather."[41] To experience such a feeling is to stand on the playing field on any autumn weekend and bathe in the collective emotion of the stadium crowd. This too is part of the sports medicine experience.

In attempting to explain the appeal of sports medicine, Jack W. Bowerman, M.D., the first director of skeletal radiology at Johns Hopkins and the author of the earliest text on the radiology of sports injury, wrote, "It is the circumstances of the injury, the risk taking involved, and the continued exposure to risks that produce the interesting characteristics of injury in sports."[42]

Although the many differences between the modern Olympiad and the games of the ancient world typify the evolution of sport, biologic evolution has not kept pace. Despite the modern Olympic motto *Citius Altius Fortius* (higher faster stronger), the modern athlete is not invulnerable. It is likely therefore that the association of sport with medicine that has been so prominent throughout history will continue to be important, not only in treating injury, but, it is hoped, in preventing it.

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Prescribing exercise for your patient

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ABSTRACT: *The lack of exercise by most Americans is a major contributing factor to many chronic diseases. Physicians are now prescribing exercise for patients just as they would drugs. Compliance with any exercise program depends on realizing the needs and goals of the individual. The fundamental principles of an exercise prescription apply to all persons regardless of age, sex, or level of fitness. A systematic manipulation of the components of frequency, duration, intensity, and progression with periodic reevaluation allows the program to be individualized. The guidelines for the program should include all of the components of health-related physical fitness. These include cardiorespiratory endurance, body composition, muscular strength and endurance, and flexibility. A program for exercise should fit the lifestyle of the patient and be a life-long prescription.*

. . . all parts of the body which have a function, if used in moderation and exercised in labors in which each is accustomed, become thereby healthy, well developed and age more slowly, but if unused and left idle they become liable to disease, defective in growth, and age quickly.

HIPPOCRATES

The human body is a wondrous machine that thrives on movement. For success in recreational activities, sports competitions, and physically strenuous working environments, the body is required to be in good general condition. In recent years, evidence has mounted to support the

use of exercise in preventing and treating a variety of diseases. Physicians are now prescribing exercise for patients as they would drugs. However, the correct dosage is paramount to any successful treatment. Compliance and effectiveness of an exercise program are only achieved when the prescription is individualized to the patient and follows specific guidelines and principles that are similar for all people.

Health benefits of exercise

When Frank Shorter won the marathon at the 1972 Olympic Games in Munich, America was launched on a fitness boom. After 24 years, however, Americans who have positively altered their exercise habits represent a minority. A recent study estimated that only 7.5% of all Americans meet the American College of Sports Medicine guidelines for cardiorespiratory fitness development and maintenance.[4] During the past few decades, as a result of a more sedentary lifestyle, the chronic diseases have replaced communicable disease as the leading cause of death. Most of the chronic diseases are not transmitted from one person to another, but are self-inflicted.

As the government decides on major health care reform to reduce the costs of disease treatment, physicians seek ways to reduce costs in a capitated reimbursement environment. Because regular exercise is associated with the prevention or treatment of coronary artery disease, cerebrovascular disease, hypertension, diabetes, arthritis, dyslipidemia, osteoporosis, obesity, depression, cancer, and chronic obstructive pulmonary disease, it is no wonder physicians are prescribing exercise.[2]

The purpose of exercise prescription

In recent years, the American College of Sports Medicine and the American Heart Association have reevaluated the prescription of exercise for improved fitness and health maintenance. The intensity of exercise required for improved fitness is not necessary for improving general health. The small difference between the two could be a walk up a flight of stairs compared to a strenuous step aerobics class at the local health club. When it comes to improved health, exercise frequency is more important than intensity. The decision by the physician to prescribe exercise for health or fitness can have a significant bearing on patient compliance with the program. The fundamental objective of an exercise prescription is to create a change in personal health behavior to include regular physical activity. A patient will continue in a program that has achievable goals.[1]

Testing and data interpretation

Before prescribing a drug, physicians evaluate the patient through a battery of tests to determine the extent of the disease. In the same way, exercise prescriptions are written based on testing to determine baseline information about the individual's physical fitness. Physical fitness testing also provides essential information for planning a safe and reasonable prescription.

Health-related physical fitness is defined by an ability to perform daily activities with vigor and a demonstration of traits and capacities that are associated with low risk of premature development of the hypokinetic diseases (those associated with physical inactivity).[1]

Cardiorespiratory endurance, body composition, muscular strength and endurance, and flexibility are most often accepted as the components of health-related physical fitness. Many different tests are used to measure these factors. Those usually chosen are the most reliable, inexpensive, and easy to administer. Results can be compared to normative data and are then helpful in developing the exercise prescription. Follow-up testing also motivates the patient as goals are achieved.

A medical evaluation is also a useful tool for prescribing exercise. Many patients are motivated to exercise because of abnormal clinical measures such as high blood pressure or lipid levels. Lowering these measures could be used as goals for continued adherence. Information obtained in a medical evaluation that includes a maximal stress test can also be used in prescribing intensity. Some patients should not exercise and some need to exercise under close supervision. These individuals could be identified.

Principles of prescription

An exercise program should be individually prescribed based on the needs and goals of the patient. However, there are basic principles for achieving a desired level of fitness. Following are principles that have been established by the American College of Sports Medicine based on published research.

The overload principle. Physiologic adaptations occur when stress is applied at levels beyond a certain threshold. Overload of the various systems involves gradually increasing unaccustomed stresses. Without an overload, there will be no improvement because the body has already adapted.

When the stress is beyond the threshold level, there is a disruption to the tissues exercised. During a recovery interval, the tissues repair and restore with an overcompensation in tissue growth and development. The body is now at a new

threshold level. The nature of the threshold level varies for the system being exercised (strength, cardiovascular, flexibility). The level also varies depending on the fitness level of the individual. For the totally sedentary patient, a more active lifestyle is enough stress to provide adaptations.

The basic components of the overload principle are the intensity, duration, and frequency of exercise.

The specificity principle. The body adapts according to the specific nature of the training activity. Therefore, the adaptations occur to the metabolic and physiologic systems of the specific muscles and tissues exercised. For the athlete, training type and intensity should be designed to duplicate competition. For the patient, movement types and intensity are selected based on goals and interests.

Cross-training combines different activities in the fitness program. It has become very popular because it allows fun and diversity to be included in the exercise program. Cross-training enables the patient to maintain a high volume of exercise with less likelihood of injury.

The individual differences principle. Because no two people have the same genetic characteristics, there are variations in the adaptations that can be expected from a given exercise program. Heredity plays a major role in determining the response to any exercise prescription. For this reason, the goals and expectations should be reviewed and the exercise program adjusted to the individual patient.

The reversibility principle. The positive effects of exercise are lost when overload stops. The rate of decline varies between the systems with the cardiovascular conditioning being the most affected. "Use it or lose it" is a popular phrase to describe the reversibility principle. For the benefits of exercise for maintaining improved health, exercise is an uninterrupted commitment for life.

The progression principle. Since the threshold level for overload changes as the body adapts, there should be a gradual but persistent increase in the exercise workload over a long period of time. If this is not done, adaptations are compromised and the patient does not get the most out of the exercise session.

A rate of progression should be used when a patient is starting an exercise program for the first time. The rate depends on the patient's functional capacity, medical and health status, age, and goals. For most healthy patients, there are three phases of the program: initial, improvement, and maintenance.[1]

The initial phase emphasizes adherence and compliance with the program. Exercise should include light muscular endurance and low level aerobic activities that do not promote muscle soreness, discomfort, or injury. This phase of the program usually lasts four to six weeks.

The improvement phase could last a minimum of four months to several years. The frequency and duration of exercise are increased during this time. The increases are slow and by a rate that depends on how the participant adapts to the conditioning program. Adaptations occur more slowly for older patients during this phase.

The maintenance phase usually begins when the patient has met the exercise goals established in the beginning of the program. Since there is no longer any interest in further increases in the conditioning stimulus, the patient can continue to maintain fitness by continuing the same workout routine.

The overtraining principle

When the stress of excessive exercise exceeds the body's ability to recover and adapt, a chronic state of fatigue can occur. Overtraining can lead to physiologic and psychological changes that break down the body rather than build it up. The cure for overtraining is temporary cessation of exercise.

Components of the exercise prescription

Cardiorespiratory endurance, muscular strength, flexibility, muscular endurance, and body composition have been identified as the components of health-related physical fitness. The exercise prescription should focus on these components. Because most chronic diseases are of the cardiorespiratory system, a great deal of emphasis has been placed on this form of endurance exercise. In recent years, however, more attention has been focused on exercise for the musculoskeletal system, not only for the elderly to continue to perform activities of daily living, but to prevent injuries.

Cardiorespiratory endurance

This form of exercise is often referred to as *aerobic,* which means *with oxygen.* Because the body requires a continuous supply of oxygen to burn fats and carbohydrates to sustain activities, the goal of aerobic exercise is to improve the body's ability to use oxygen more efficiently. Cardiorespiratory fitness is assessed by oxygen consumption (VO_2 maximum), which is measured in liters/min, ml/kg/min, or metabolic equivalents. There are four important factors when prescribing aerobic exercise.

Mode of exercise. Walking, stair climbing, jogging, swimming, biking, and dance are all forms of aerobic exercise. What they all have in common are the use of large muscle

groups over prolonged periods. The movements should be rhythmic so that the activity can continue without interruption. The selection of an appropriate mode of exercise is essential for patient compliance. If the exercise prescription involves unenjoyable, boring activities that require expensive equipment or joining a club, the patient will have an easy excuse to stop. Therefore, before a program is outlined, ensure that the patient selects an activity or activities that will become a daily routine.

Frequency of exercise. How often the patient exercises will vary according to the level of fitness of the individual. For the sedentary, first-time participant, establishing a routine and making the commitment are the primary concern. For this reason, multiple short daily exercise sessions are recommended. No emphasis needs to be placed on duration or intensity. When the patient has established a routine or if there is some history of exercise habits, one to two sessions per day are appropriate.

After the patient has exercised for 4 to 6 weeks, exercise sessions can be reduced to 3 to 5 times per week. The decreased frequency is accompanied by increased duration and intensity. Exercising more than five times per week increases the likelihood of injury. The number of sessions per week is prescribed according to the limitations imposed by the patient's lifestyle.

Duration of exercise. In the beginning, when frequency is several times daily, duration should be less than 10 minutes. With reduced frequency comes increased duration. Once the patient has established a 3 to 5 times per week routine, exercise duration should be 20 to 60 minutes. Time constraints by the patient's schedule may affect the amount of exercise time. Morning, lunch hour, and after work sessions are usually a total of one hour.

For patients who are exercising for weight loss, the duration of exercise can be set by caloric expenditure. Average energy expenditure per minute is available for many activities. To lose one half pound through exercise requires an expenditure of 350 to 550 calories per session. Epidemiologic data indicate that expenditures of 1000 to 2000 calories per week result in fewer heart attacks.[4]

Intensity of exercise. Intensity and duration are inversely related: the more intense the exercise the shorter its duration. Similar increases in cardiorespiratory endurance can be achieved with a low intensity, long duration session, or a high intensity, short duration session. Most programs will be low intensity, long duration exercise. The chance for injury increases with higher intensity exercise. Intensity is introduced into the exercise prescription during the improvement phase. Several methods can be used to prescribe intensity.

Straight percentage of maximum heart rate. Determine the patient's maximum heart rate using a maximal graded exercise stress test. If that is not available, the maximum heart rate can be predicted by subtracting the patient's age from 220, but the estimate can be off by as many as 12 beats per minute for some people. The recommended heart rate range is 60% to 90% of maximum heart rate. If the patient has a very low initial fitness level, 60% is recommended.

Heart rate reserve. Subtract the patient's standing resting heart rate from the maximum heart rate. This is the heart rate reserve. Calculate 50% to 85% of the heart rate reserve. Then add each of these values to the resting heart rate to obtain the target heart rate range. The advantage to using this method is that it reflects the individual's fitness level. In general, the more fit the patient, the lower the resting heart rate and the greater the heart rate reserve.[3]

Although the patient can be taught how to determine heart rate by palpating the pulse, wireless heart rate monitors are now available that give accurate electrocardiographic readings every five seconds and cost less than $100.

Rating of perceived exertion (RPE). RPE scales are often used during stress tests to assess the patient's impression of intensity. This method is useful when people have a difficult time palpating a pulse. Gunnar Borg developed a scale that is used by most cardiologists. The scale ranges from 6 to 20, with 6 being very, very light and 20 corresponding to very, very hard. The RPE range associated with aerobic exercise is 12 to 16.

Metabolic equivalent (MET). One MET is the amount of oxygen required by the body at rest. Charts are available that indicate the energy expenditure in METs of a variety of activities. Exercise intensity can be prescribed through the charts. The intensity recommended is 50% to 85% of the total METs achieved during a graded exercise stress test. This method of determining intensity is more appropriate for the conditioned patient.

Muscular strength and endurance

Muscular fitness is a component of a balanced exercise prescription. Over-emphasis on cardiorespiratory fitness results in neglect of upper body strength and endurance. It is therefore important to integrate muscular strength and endurance conditioning into a program for performance, health, or rehabilitation. Resistance training programs will improve or maintain lean body mass, increase bone mass, and strengthen connective tissue.

To develop strength and endurance, the muscle being exercised must be overloaded. Overloading a muscle requires a resistance above that which is normally experienced. This can be accomplished in a variety of ways.

Calisthenics. The patient's own body weight acts as the resistance. Everyone from elementary school teachers and the military to cardiac rehabilitation instructors has used work against gravity in a number of different movements. Large muscle groups should be exercised first.

Free weights. When athletes use free weights, an assistant or spotter is recommended as a safety precaution. Therefore, this method is usually discouraged for the home exerciser or beginner.

Machines. Most often found in health clubs and corporate facilities, these are the simplest and safest form of resistance training. There are many different varieties (i.e., isotonic and isokinetic) using water, hydraulics, and cams to provide the resistance. Regardless of the type of system, the fundamental principles of resistance training should be followed.

Fundamental principles of resistance training

Choice of exercise. Selection should depend on the body part, type of contraction (concentric, eccentric), and physical limitations due to injury.

Order of exercise. Large muscle groups are exercised first. In some cases, athletes decide to pre-exhaust the smaller muscle groups to allow for additional overload.

Number of sets and repetitions. When the prescription is to develop strength, 3 sets of 8 to 12 repetitions are recommended. To develop endurance, use 2 sets of 15 to 20 repetitions.[5]

Rest periods. Some patients may have access to circuit training programs at health clubs. Circuit training is a series of stations designed to be performed in rapid succession to optimize time. Muscular strength training usually requires rest periods of one to three minutes between sets.

Load or resistance. The resistance is selected to develop maximum or near maximum tension in the given number of repetitions. Thus, if 10 repetitions are recommended, the weight is selected so that 10 but not 11 repetitions can be performed.

Muscular flexibility

Flexibility is a major fitness component because it contributes to the prevention of and rehabilitation from injury. Flexibility is specific to each joint; thus, an exercise prescription must include a total body program. For the older patient, loss of flexibility is due to inactivity rather than a normal process of aging. Sedentary individuals are less flexible than active ones.

One of the conditions experienced by the greatest number of patients is low back pain. Exercise recommendations to alleviate low back pain include strengthening the abdominal muscles, good posture, and flexibility of the hamstrings and back extensors.

Static stretching is the preferred form of stretching. It requires slow, controlled movements to the point in the joint's range of motion where discomfort but not pain is felt. This position is then held for 15 to 30 seconds. The stretch is then repeated two or three times. This form of static stretching can be performed daily.

The muscle and tendon should be warm before stretching; simple warm-up movements to begin sweating or exercise itself are recommended. The patient should never bounce or bob to achieve a desired position while stretching.

Guidelines for an exercise program

After the components of the exercise prescription have been determined, they are integrated into a total exercise program. The components for each patient should be based on physical/medical tests and individual needs and interests. Programs can vary widely among patients. Exercise programs should include:

Warm-up and stretching. To prepare the heart, lungs, and muscles for the exercise to follow, low-intensity movements such as calisthenics should be done for three to five minutes. Warm-up could also include the mode of exercise that will be used in the training phase but performed at a much lower intensity. This would allow the specific muscles to be used to be exercised. Many individuals include the flexibility portion of the program during the warm-up. There are no conclusive studies that show whether stretching is better before or after exercise.

Cardiorespiratory endurance training. After a brief warm-up, the patient endurance trains using the principles and recommended intensity, duration, and frequency. The mode of conditioning is selected by the patient.

Cool-down and stretching. As important as the warm-up, the cool-down gradually returns the cardiorespiratory system to resting levels. Without a cool-down, blood can pool in the legs and cause dizziness or fainting and cardiac arrhythmias could also occur due to elevated catecholamine levels in the blood. Flexibility training can be done after the cool-down.

Resistance training. Supplemental to the endurance training but an important part of a total program is resistance training. The recommendations for strength or endurance methods should be followed. Although endurance training can be performed every day, resistance training should be done every other day.

Recreational activities. A complete program should include activities for relaxation and enjoyment. These are activities that are not as structured in their method but could result in improving fitness.

Adherence to the exercise prescription

Any prescription is only effective if the patient adheres to the recommendations. The most common reasons given for noncompliance are inconvenient exercise site, work conflicts, poor spousal support, philosophical opposition to exercise, poor choice of exercise, and injuries. Thus careful consideration of the patient's lifestyle can help avoid dropouts.

Define realistic goals. Set specific, realistic goals that can be achieved in a short period of time. Then, reevaluating the goals can move the patient to the next level.

Exercise with a group. Exercising with others provides motivation, reinforcement, and camaraderie. Studies have shown more people drop out when they exercise alone.[4]

Associate with others who exercise. Many patients drop out because of pressure and negative attitudes from others. Associating with other exercisers adds enthusiasm and commitment to the program.

Keep a progress chart or log. A daily record of workouts can show progress and assess the success of particular workouts.

Set a time and place for exercise. In the initial stages of the program, regularity can be established by scheduling workouts.

Know that there are no failures. By avoiding competition, a patient cannot fail. With positive reinforcement, any patient will benefit from an individualized program with even a minimal degree of success.

These guidelines and principles should be taken into consideration when an exercise prescription is developed for a patient. By remembering that each person needs an individualized exercise program, physicians can help anyone realize the rewards of good health and an active lifestyle. Exercise is a prescription for a lifetime.

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Exercise and pregnancy

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Exercise programs involving strenuous and prolonged physical activity such as aerobics, running, swimming, and stairmaster and treadmill workouts have become a way of life for women planning for pregnancy, during pregnancy, and during the postpartum period. The American College of Obstetricians and Gynecologists (ACOG) published guidelines in 1992[1] and 1994[2] based on a review of the relevant scientific literature. Many of the old concepts regarding the inability of women to participate in sports have changed as society has changed. During the past

decade, women have exercised with no significant increase in maternal or perinatal morbidity or mortality. All athletic participation should be with the appropriate level of matched competition, with prior conditioning and skill development, and with knowledge about the sport and its rules. Attention to the foregoing will decrease the risk of injury and maintain enthusiasm, fairness, and interest in the sport.

This is an exciting time for women in sports as laws change, societal mores change, opportunities expand, knowledge and research increase, information awareness and availability expand, athletic choices widen, and we move toward evidence-based thinking. If physicians support and encourage exercise during pregnancy and encourage women to follow common sense guidelines, pregnant women can have the autonomy and control to reach their fullest capability and potential and have a finer experience in pregnancy. Whether we can improve perinatal statistics, however, is uncertain.

Benefits of physical fitness during pregnancy

- good muscle tone
- sense of well-being
- sense of body control
- ability to be in the best physical shape for labor and delivery
- reduced anxiety and frustration
- improved sleep
- opportunity to keep weight gain under 35 pounds
- opportunity to keep body fat deposition to a minimum
- improved chances of an easier labor
- improved self image
- improved sexuality

This article briefly discusses the important physiologic changes during pregnancy, reviews some recent research findings, provides some general guidelines about exercise during pregnancy, and explains some safety issues about specific sports and athletic endeavors. It also includes medication guidelines, a listing of who should not participate in sports, and a brief word on when women should discontinue exercise during pregnancy.

Physiology of exercise and pregnancy

Cardiac factors. Pregnancy alters maternal hemodynamics. There is an increase in blood volume, cardiac output, and resting pulse and a decrease in systemic vascular resistance (blood pressure). All of these factors are affected by body position and are probably mediated by hormonal changes. The normal physiologic responses to steady state exercise are maintained during pregnancy and include increased cardiac output, stroke volume, and heart rate. These physiologic adaptations to exercise rarely reach pathological levels if common sense guidelines are followed. Most pregnant women can safely exercise. One caveat is that after the first trimester[3] exercise in the supine position may decrease cardiac output to the point of lightheadedness in 10% of pregnant women.

Respiration. During the first trimester, probably secondary to the effect of progesterone, relative hyperventilation develops. As pregnancy progresses, the diaphragm is elevated and the chest diameter expands, leading to decreased expiratory reserve volume and decreased functional reserve capacity. An increase in tidal volume causes a 48% increase in minute ventilation by the end of pregnancy. The respiratory rate is relatively unchanged during pregnancy; tachypnea (more than 20 breaths per minute) is abnormal. Most pregnant women do experience some shortness of breath (even when not exercising), which is due to placental production of progesterone.[3]

Musculoskeletal effects. Despite the obvious anatomical and physical changes associated with pregnancy (altered center of gravity, lordosis, weight gain, joint laxity), there are no reports of an increased incidence of injury. Low back pain is common during pregnancy with or without exercise because of the strain on the muscles and ligaments of the vertebral column. Joint laxity may limit activities that require rapid changes in balance or direction.[4]

Metabolism. Approximately 300 extra kilocalories per day are needed to meet the normal metabolic needs of pregnancy. This caloric requirement is increased further in pregnant women who exercise regularly. Physically fit women thermoregulate very efficiently during pregnancy, allowing no major change in central core temperature. There has been no demonstrable increase in birth defects among studied pregnant women who continue to perform vigorous exercise during early pregnancy.[2]

Uterine response. In the majority of healthy pregnant women without additional risk factors for preterm labor, exercise does not increase either baseline uterine activity or the incidence of preterm labor or delivery.[2,5]

Fetal response. In the absence of significant fetal or maternal disease, oxygen uptake is maintained during exercise because of efficient fetal oxygen uptake into tissues and physiologic increases in uterine blood flow up to 500 cc/minute at term. Fetal monitoring studies performed on exercising pregnant women show no deleterious effects if ACOG guidelines are followed. There is strong evidence that exercise during pregnancy does not cause intrauterine growth

restriction and that the 300-gram reduction in birth weight found in earlier studies reflects a benign lowering of newborn fat content.[2]

Cardiovascular conditioning. Recent studies assessing physical fitness in pregnancy[4] have concluded that:

- similar exercise intensities are perceived as less strenuous in the conditioned subjects;
- exercise capacity can increase as a result of training;
- submaximal exercise heart rates may be lower in trained pregnant subjects;
- low intensity training in pregnancy does not influence submaximal cardiac output or stroke volume;
- there is no evidence that low intensity training performed in these studies has any negative cardiovascular effects on the mother.

General guidelines

1. Regular exercise at least three times per week is safe.
2. Avoid brisk exercise resulting in sweating in hot humid weather.
3. Avoid jerky, bouncy or high impact motions. Activities that call for jumping or jarring motions or quick changes in directions may strain the joints and cause pain. Low impact exercise on a carpeted floor reduces impact and gives secure footing.
4. Bras should fit well and give enough support to help protect the breasts; this may require several bra size changes during the pregnancy. Some of the newer sport bras offer no compression and a "no push-up" effect with the benefit of full motion control and decreased movement of the breasts (e.g. Champion In Shape™ sport bra; 1-800-621-3682).
5. Shoes must fit properly and women should be told they may experience a change in shoe size during pregnancy.
6. Deep knee bends, full situps, double leg raises, and and straight leg toe touches should be avoided.
7. After 20 weeks of pregnancy, exercise that requires lying on the back should be limited to no more than a few minutes.
8. Start with at least 5 minutes of warmup, have sessions with only 15 or so minutes of intense exercise followed by 10 to 15 minutes of slower activity, and end with some gentle, submaximal stretches.
9. Get up from floor exercises slowly to help avoid feeling dizzy or lightheaded.
10. Wear comfortable, loose fitting clothing that stretches with movement. Fabrics should let the body breathe. Use cotton underwear.
11. Do not work out on an empty stomach. Eat a light meal or snack and some fluids 15 to 60 minutes before beginning warmup routine.
12. Do not exercise to exhaustion. Perspiration is fine but a drenching sweat is a sign to decrease the activity level. A pulse that is more than 100 beats per minute five minutes after a workout means the workout was too hard. Women should feel better after the workout, not drained or in need of a nap.
13. Drink fluids before, during, and after exercise. Losing as little as 1% of body weight can increase cardiovascular strain. Recent guidelines from the American College of Sports Medicine also apply to pregnant women:
    - drink about 17 ounces of fluid two hours before exercise to allow time for both adequate hydration and excretion of excess water;
    - start drinking early during exercise and continue drinking at regular intervals (5 to 12 ounces every 15-20 minutes depending on the level of exertion during the exercise workout);
    - rehydrate after exercise; one helpful way is to weigh before and after activity and to replace each pound lost with 16 ounces of fluid;

Recent findings in the medical literature

- The physiologic adaptations to exercise and pregnancy are complementary and fetoprotective.[6]
- There are no reports of an increased incidence of fetal distress or fetal demise in late pregnancy among conditioned women who exercise. Nor is there an increase in meconium, low Apgar scores, or abnormal fetal heart rate patterns.[7]
- There is a reduction in birth weight because of a decrease in fetal fat in conditioned exercisers.[6]
- Shortening of the first stage of labor and a reduction in the duration of pushing for the second stage of labor has been found in exercisers.[6]
- Among conditioned exercisers, there is a lower incidence of post-date pregnancies.[6]
- Women with diabetes who exercise may have better glycemic control.[2]
- All women, regardless of initial level of physical activity, decrease their activity as pregnancy progresses.
- Maintaining a training program during pregnancy appears to have no adverse effects and is associated with fewer reports of discomforts during late pregnancy.[6]
- There has been no reported increase in spontaneous abortions or placental abnormalities if exercise is established at 30 minutes three times per week at reasonable levels.[6]

- try to avoid getting thirsty during exercise; by the time the brain senses thirst, some degree of dehydration has already occurred;
- monitor the level of hydration by urine output and color; deep yellow, scanty urine reflects the need for more fluid;
- most commercially available sports drinks supply the necessary glucose and electrolyte components for rehydration and convenient sports bottles are readily available for outdoor activities.

14. Many pregnant women suffer from stress urinary incontinence during exercise. The pregnant uterus pressing on the bladder, changes in soft tissue tone, and lowered urethral resistance all contribute to stress urinary incontinence. Most women exercise despite the temporary condition of incontinence. Kegel exercises should be encouraged to decrease the incidence of accidents. Resolution of the incontinence usually occurs within six weeks postpartum.
15. Sunscreens should be used to avoid sunburn.

Specific sport recommendations

Contact sports. Avoid blunt trauma to the abdomen.

Scuba diving. This is not allowed because of the risk of decompression syndrome.

Horseback riding. Most pregnant women should use stirrups. Pregnant women should avoid sitting trot because of the discomforts to the back muscles and the jarring and motion to the uterus. As the uterus enlarges during the second trimester, there will be contact with the pommel of the saddle when taking a two-point position; this can distract the rider, who should be concentrating on the horse and her direction. Jumping should be stopped when the uterus starts making contact with the saddle (24 weeks' gestation). Walking and cantering may safely be continued until 28 weeks. A helpful suggestion is to have the woman familiarize herself with one horse to decrease the chance of accident.

Ice skating. This is generally safe in a quiet rink without dangerous skaters.

Soccer, lacrosse, softball. There is some risk of abdominal trauma and orthopedic injuries, especially after the 26th week of pregnancy.

Volleyball. This sport is generally safe, but diving for the ball should be avoided. Most spikes at the amateur level will not harm the fetus if the ball hits the maternal abdomen.

Swimming. Because they have shorter arm length and shorter bodies, women usually must take more strokes than men to swim the same distance, which increases the risk of shoulder injuries.

Muscle resistance equipment. Physical conditioning using resistance machines and weightlifting has not been adequately studied in pregnant women. Training with 2- to 5-pound weights (light weights) is recommended. Avoidance of overhead lifting is advised. The exercise equipment capabilities must be evaluated because most equipment is made for men with much larger muscle mass.

Water walking and water aerobics. These low impact activities provide great conditioning.

Tennis. Although this is generally safe (especially doubles tennis), caution should be used when rapid movements and reflex reactions are needed.

Snow skiing. This is generally safe until the 28th week if precautions are taken to avoid altitude sickness, black diamond slopes, crowded slopes, and night skiing. Balance may be altered because of changes in body shape and center of gravity. Some women, however, report that skiing is easier with the shift in their center of gravity.

Calisthenics. Some exercises may be dangerous during pregnancy. Examples include moves that pull on the abdomen (situps, double leg lifts); moves that might force air in the vagina (shoulder stands, upside down bicycling, bringing the knee to the chest while kneeling on all fours); moves that stretch the inner thigh muscles; and moves that cause inward pressure on the small of the back.

Yoga, meditation. Avoid inversions and the prone position.

Safety issues

According to ACOG, a number of medical and obstetrical conditions limit or eliminate an exercise program during pregnancy. Contraindications include pregnancy-induced hypertension, premature rupture of the membranes, preterm labor (current or past pregnancy), incompetent cervix or cerclage, persistent bleeding, and intrauterine growth restriction. Women with conditions such as chronic hypertension, thyroid disease, cardiovascular disease, asthma, or pulmonary restrictive disease should be evaluated carefully to determine whether an exercise program is appropriate. Obvious reasons to stop or modify an exercise program include shortness of breath, bleeding, cramping, abdominal pain, or injury.

There are probably a decreased number of injuries during pregnancy because most women who exercise use more control and pay strict attention to factors that contribute to injury. It is wise to advise most exercising women to lower their expectations and activity after the 30th week of pregnancy. Stretching, walking, water walking, and slow lap swimming, however, are safe activities until term.

Athletes who are advised to markedly restrict or stop exercising should be told that there is no evidence of fetal or maternal harm from stopping a program.

Medications that are safe to use during pregnancy include Tylenol, Tylenol with codeine, Percocet, Vicodin, and Tylox. The application of heat and cold usually alters the pain threshold, possibly reduces muscle spasms, and decreases local painful swelling, thereby decreasing the need for analgesics. Most women want to use as little medication as possible during pregnancy and they are willing to try behavioral techniques that include relaxation, distraction, imagery, and biofeedback.

Postpartum

Many of the physiologic and anatomic changes of pregnancy persist for four to six weeks postpartum. Most women may safely restart their pre-pregnancy or pregnancy exercise program at four weeks post partum with a gradually progressive routine based on their individual prior conditioning and training.

Summary

Although there is much to be learned by experience-based research, most women can participate safely and should be encouraged to participate in some exercise program because the benefits outweigh the risks. Each woman should customize her exercise program after a thorough obstetric evaluation. Using common sense guidelines, the obstetric patient will feel better about herself and her ability to control, in a positive fashion, her pregnancy outcome.

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Does running exercise cause osteoarthritis?

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ABSTRACT: *Although numerous health benefits are associated with running, relatively little is known about long-term effects on the musculoskeletal system. Running places a great deal of repetitive stress on the joints and supporting structures of the lower extremities. Through animal and clinical studies, investigators have attempted to determine whether running exercise causes osteoarthritis. Available evidence indicates that moderate running in individuals without anatomical variances poses no increased risk for the development or acceleration of osteoarthritis. Runners with abnormal anatomy and those with significant previous injury are at increased risk for the development and progression of lower extremity osteoarthritis.*

With the growing national interest in physical fitness, running has become very popular as both a recreational and competitive activity. It is estimated that in the United States there are approximately 30 million runners of all levels; 10 million run regularly and 800,000 to one million regularly compete in various races.[1] The potential health benefits of running and other types of regular exercise have been well publicized. These include decreased risk of cardiovascular disease, reduction in blood pressure, assistance in weight reduction, and improvement in emotional well-being.[2] Running, however, has been associated with a fairly high incidence of various acute and overuse injuries,[3] and little is known about long-term consequences on the musculoskeletal system. Some investigators have suggested that long-term running exercise may be a causative factor in the development of osteoarthritis. This article reviews the steadily growing body of literature addressing the question, does running exercise cause osteoarthritis in the weight-bearing joints?

Background

It is known that cyclic loading of cartilage is beneficial and helps to preserve its functional integrity.[4] It is postulated that cyclic loading is necessary for cartilage nutrition as it allows nutrients in synovial fluid to be squeezed into the cartilage. Moderate weight-bearing exercise appears to be beneficial for joint health.[5] Excessive mechanical stress on joints in the form of repetitive trauma, however, has been implicated by several epidemiologic studies as leading to an increased incidence of osteoarthritis. There is an increased prevalence of osteoarthritis of elbows and knees in miners,[6] shoulders and elbows in pneumatic drill operators,[7] and hands of cotton workers.[8] Panush and Brown[9] have reviewed numerous studies suggesting a possible relationship between various sports activities and osteoarthritis, but none of these findings has been corroborated by well-controlled longitudinal studies.

Running places a great deal of repetitive stress on the lower extremities. Whereas an impact equal to 80% body weight is absorbed at heel strike while walking, the impact increases to 250% body weight while jogging. The cumulative difference over the course of a mile for an average 150 pound individual is 97 tons of impact absorbed by the lower extremities.[10] Pertinent information as to whether the aforementioned loads placed on the lower extremities during running contribute to the pathogenesis of osteoarthritis has been derived from both animal and clinical studies.

Animal studies

Radin and colleagues[11] studied the effects of repetitive impact loading on cartilage in sheep subjected to four hours daily walking on concrete. All the animals limped by nine months. When they were killed at 12 to 30 months, there was evidence of gross, histologic, and biochemical cartilage degeneration in all cases, indicating that repetitive impact loading can cause destructive joint changes.

Kiviranta and coworkers[12,13] examined the effects of moderate vs. strenuous running training programs on the knee joint articular cartilage in dogs. Moderate running training (4 km/day for 15 weeks) generally increased cartilage thickness and increased glycosaminoglycan concentration by 28% more than control values. A strenuous running program (20 km/day for 15 weeks) caused cartilage thickness to return to control values and a statistically significant 11% decrease in glycosaminoglycan concentration. The investigators concluded that moderate running is beneficial to cartilage health, but that strenuous exercise may largely reverse these benefits.

To determine if running exacerbates preexisting osteoarthritis of the knee, Videman[14] induced osteoarthritis in the hind limbs of 12 rabbits. Study animals and matched controls were forced to run 2250 meters per week for 14 weeks. Two pairs were eventually excluded because of injury or death. There were no significant radiologic or histologic differences between the two groups, and the author concluded that running had neither adverse nor beneficial effects on the osteoarthritic joints.

Clinical studies

There have been several retrospective, cross-sectional studies. With one exception, they seem to indicate that in runners who do not have abnormal lower extremity biomechanics, the prevalence of lower extremity osteoarthritis is no greater than in otherwise well-matched nonrunners.

Puranen and colleagues[15] examined the hip joints of 74 Finnish former champion distance runners. Mean age was 55 years and mean length of competitive running was 21 years. No average mileage was given. Four percent of the former athletes and 8.7% of age-matched controls had clinical and radiographic osteoarthritis of the hip. Investigators concluded that competitive running should not be considered a factor in the development of osteoarthritis of the hip.

Sohn and Micheli[16] compared the incidence of osteoarthritis of the hips and knees in age-matched populations of former collegiate runners and swimmers. The study group consisted of 504 former varsity cross-country runners who

averaged 25.4 miles per week. Controls were 287 former collegiate swimmers. Mean follow-up was 25 years. The authors reported that 2.8% of the runners and 4.5% of the swimmers had severe joint pain or had required a surgical procedure because of osteoarthritis. They concluded that running approximately 25 miles per week is not associated with the development of osteoarthritis. They also found no association between the number of years run and the incidence of osteoarthritis.

Konradsen and coworkers[17] examined the hips, knees, and ankles of 27 long-distance runners (average age, 58) who had been competitive in the early 1950s. They had run an average of 12 to 24 miles per week for a median of 40 years. Twenty-seven nonrunning controls were matched to age, height, weight, and occupation. Subjective, objective, and roentgenographic criteria were compared and no significant differences were found between the two groups.

The findings of Marti and colleagues[18] are at odds with those cited above. They compared 27 Swiss former national team long-distance runners to 9 bobsled competitors and 23 nonrunning controls. Mean age of the study group was 42 years with a mean of 19.7 years running. Initial examination was in 1973 with follow-up in 1988. Five runners but none of the nonrunners had radiographic evidence of osteoarthritis of the hip. Among the runners, running pace in 1973 rather than actual mileage was the strongest predictor of subsequent radiographic hip osteoarthritis in 1988. Investigators concluded that high-intensity, high-mileage running should not be dismissed as a risk factor for osteoarthritis of the hip.

In an oft-quoted study, McDermott and Freyne[19] randomly selected 20 middle- and long-distance runners from a group complaining of knee pain. Average age was 39 years with a 19-year history of running 62 miles per week. Six runners had clinical and radiographic evidence of knee osteoarthritis. All six had significant genu varum and four gave a history of knee trauma. For the entire group of 20 runners, there was a statistically significant relationship between the presence of osteoarthritis and the presence of genu varum or previous knee injury. Osteoarthritis in runners was clearly linked to a preexisting biomechanical abnormality. This study suggests that pain and radiographic degenerative changes are associated with genu varum and a history of knee injury.

A longitudinal study design would theoretically eliminate the possible bias of self-selection by runners who stop running because of osteoarthritis. Two longitudinal studies dealt with this issue. Panush and coworkers[20,21] examined 18 male runners and 18 age-, height-, and weight-matched controls in 1986 and again in 1994. The runners ran a mean of 28 miles per week for 12 years; 53% were marathoners. Initially and at follow-up, there were no clinical or radiographic differences in the hips, knees, ankles, and feet of the two groups. The authors concluded that running did not appear to accelerate the development of osteoarthritis.

Lane and colleagues reached a similar conclusion. Their first cross-sectional data on 41 long-distance runners and matched controls, published in 1986, showed no evidence of increased clinical osteoarthritis in runners.[22] Similar findings were obtained at two-[23] and 5-year follow-ups.[24] At 5 years, 35 runners and 38 controls were reexamined. Mean age was 63 years. Clinical and radiographic examination of the hands, knees, and spine showed a generalized increase in osteoarthritis progression, but it was not accelerated in the runners. Five controls and four runners had osteoarthritis of the knees. The statistically significant predictors for osteoarthritic changes in the knees were older age and higher weight, not running.

Discussion

Animal data indicate that moderate running is beneficial to cartilage health,[12] but produces deleterious effects above a certain threshold.[13] Heavy, repeated joint loading can result in osteoarthritic deteriorations. Preexisting osteoarthritis alone is not necessarily an absolute contraindication to running because available evidence does not indicate that running will accelerate its development.[14]

With the exception of one study, available data show no evidence of increased lower extremity osteoarthritis associated with running up to 24 miles per week for 40 years in otherwise normal individuals.[15-17,21,24] McDermott and Freyne[19] found a disproportionate incidence of knee osteoarthritis in runners with genu varum and previous knee injury, which is probably secondary to resultant significantly abnormal concentrations of stress and load. Thus, other conditions that result in abnormal joint reaction forces (e.g., as meniscal injury, ligamentous laxity, genu valgum, and leg length discrepancy) may place runners at increased risk of developing lower extremity osteoarthritis.

Conclusion

Running does not seem to initiate or accelerate the development of osteoarthritis in individuals with normal joint anatomy and biomechanics. Running may accelerate the development and progression of lower extremity osteoarthritis in individuals with abnormal anatomy, malalignment

such as genu varum, and previous joint injury. Based on current evidence, the clinician counseling patients in an exercise program should caution against potentially abusive running exercise (e.g., marathon training) in the face of bowleg deformity, particularly if the patient is overweight. However, when advising patients who run about proper training techniques, proper shoes, and running surfaces, assure them that in the absence of biomechanical abnormality or previous injury, there is no increased risk of developing lower extremity osteoarthritis.

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Sports after total joint replacement

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ABSTRACT: *Functional return after total joint replacement is the goal of the patient and orthopedic surgeon. Return to sports is possible and encouraged following replacement surgery. However, appropriate guidelines need to be followed to prevent complications. Overuse or a too rapid return to strenuous activity has been shown to result in an increased tendency for loosening of the prosthetic components. Recommendations for a safe return to sport activity are outlined.*

Bo knows football, Bo knows baseball, and now Bo knows total joint replacement! The entire sporting world and all sports enthusiasts have followed the remarkable recovery of Bo Jackson, who sustained a devastating injury to his left hip while playing football. Following total hip replacement, he returned to play major league baseball. Bo now unfortunately knows revision hip surgery because his initial surgery was revised. Long-term survival of the total joint replacement while maintaining an active lifestyle is the goal of the patient and the orthopedic surgeon.

Bo Jackson is certainly a unique athlete, but his remarkable story typifies the desire of most patients to return to their former level of physical activity following a joint replacement surgery. Many of my patients say they are not really "athletes," but that they really enjoy playing golf or tennis. I remind them that they are indeed athletes and that their goals for achieving a satisfactory recovery are just as serious to them as a professional athlete's desire to return to his or her sport. It is well documented that Americans are living to older ages and part of the reason for that longevity is a commitment and desire to maintain an active lifestyle. Patients are not willing to give up their physical pursuits just because they have a bad hip or a couple of "bum" knees. It is extremely gratifying to see patients resume their preoperative levels of functional activity following total joint replacement surgery.

Somewhat younger patients are now receiving total joint replacements due to an increase in the population with posttraumatic arthritis who we now feel would be amenable to joint replacement surgery as opposed to a nonoperative approach. In the past, we would have perhaps suggested that they wait a few more years to have the replacements performed. Indeed, even our older patients want to spend their lives pursuing their leisure activities and golf and tennis are important components of these activities. It has been documented that "golf is the most often cited functional goal for hip or knee replacement."[1] Golf has been studied as a mode of exercise following total joint replacement.

Hip replacement

Members of the Hip and Knee Society surveyed physicians concerning their current recommendations to patients who wish to continue playing golf.[2,3] Patients' ages ranged from 43 to 76 years. The average follow-up at the time of the survey was 5 years (range, 6 months to 15 years). Ninety-two patients reported having no hip pain while playing golf. Six golfers did experience some mild pain while playing, but all stated that the pain was less than their preoperative discomfort level. As a rule, the amateur golfers in the group continued to play active schedules, including local amateur tournaments. One patient fell while playing golf and sustained an open fracture of the proximal femur that did heal. Members of the Hip Society recommend that their patients return to playing golf slowly, concentrate on chipping and putting, and lengthen the swing gradually. Most agreed that patients were advised to return to golf three to four months following the total hip replacement.

There has been a higher rate of failure of total joint replacements in young patients and in more active patients that may be due to increased stress at the bone fixation interface causing particles to accumulate in the hip and contributing to loosening and bone changes. The particles may be cement, polyethylene from the socket, or metal from the stem and cup if the cup is metal-backed. More active patients and those who engage in vigorous athletic activities can accelerate the wear of the plastic in the socket. Because of this increased failure rate of cemented joint replacements in younger active patients, fixation with a porous coated implant that allows bone ingrowth has become much more common. Failure can also occur, however, in noncemented hips; therefore, most joint replacement surgeons stress that patients with total joint replacements should avoid vigorous athletic activities.[4] Golf is certainly not a high-impact or high-stress sport and its resumption has been shown to be compatible with excellent long-term results following total joint replacement.

Knee replacement

Of the Knee Society members who responded to a recent survey, 93% did not consider total knee replacement a contraindication to playing golf. Most suggested that patients use a cart during play. The patients included three professional golfers, all of whom were able to continue teaching and playing golf without difficulty following total knee replacements.[5] There were 39 active amateur golfers in the group, of whom 15 had bilateral total knee replacements. These golfers experienced some pain while playing, yet all stated it was less than preoperative pain levels. One surgeon reported counseling patients against playing golf following total knee replacement because he feels that the terminal torque generated by the golf swing is potentially detrimental.[5] He said these stresses would be higher in the left knee for a right-handed golfer. Another surgeon, however, allows patients to return not only to playing golf, but to walking the course, and relates anecdotal comments from his patients who say their swings are "normal" following total knee

Table 1. Guide to return to sports after total joint arthroplasty

Category	Physical demand	Activity
I	low	walking, swimming
II	moderate	golf, doubles tennis, jogging, bicycling
III	high	distance running, singles tennis, hiking rough terrain, contact sports

replacement.[5] Most surgeons caution their patients not to resume golf until three months after surgery, to begin slowly putting and chipping, to lengthen their swing gradually, and not to resume a full swing until they have regained their strength in the lower extremities and are free of pain.

Shoulder replacement

Total joint replacements are not limited to the lower extremities. Indeed, total shoulder arthroplasty is becoming much more common for primary osteoarthritis or posttraumatic arthritis. Patients who undergo total joint arthroplasty generally tend to be more active than patients seen for inflammatory arthropathy. Patients with primary osteoarthritis and posttraumatic arthritis include many active golfers.[6] One report of 273 total shoulder replacements included 23 avid golfers and tennis players.[7] One was a top-ranked tennis player whose implant was in his dominant shoulder. At the time of the report there was no radiographic evidence of loosening with this group of patients.

Many patients ask if they will be able to return to golf, and some physicians indicate that they allow their patients to play golf following total shoulder replacement.[1] Some surgeons recommend that patients play "winter rules," which in theory would decrease the shock transmitted at impact to the arms and shoulders. It may be reasonable, therefore, to advise patients to tee the ball on all lies, even on the fairway. Recommendations for returning to sports after a total shoulder replacement are very similar to those for patients who have undergone total hip or knee replacements and that is to wait approximately three to four months.

Elbow replacement

Total elbow replacements are most commonly performed in patients who have inflammatory arthropathy or posttraumatic arthritis. Returning to sports, especially golf, following a total elbow replacement is not recommended. One physician reported that he would allow a truly avid golfer to chip or putt, but no more.[8]

Discussion

A number of investigators have compared the effects of several sports and total joint arthroplasties. In one study, sports were divided into low-impact and high-impact categories. Golf was included as a low-impact sport. The authors concluded that active patients participating in any sport had a "slightly increased risk of loosening of cemented hip arthroplasties."[2] Rutten[8] studied rowing as an exercise following total hip arthroplasty, concluded that it entails all the advantages to patients with a hip prosthesis, and recommended it as an appropriate rehabilitation exercise. Other surgeons have reported that swimming, cycling, gymnastics, walking, and rowing seem to be suitable after total hip arthroplasties.[9]

Dubs[10] looked at two groups of patients after total hip arthroplasty, those who engaged in intense sporting activities following their surgery and those who did not. The incidence of revision due to loosening was, paradoxically, higher in the group that engaged in no sporting activities. The rates were 14.3% versus 1.6%. In another study to evaluate the ability of patients to exercise following total hip arthroplasty, it was found that patients were able to cycle or swim more frequently after surgery than before due to a decreased pain level.[11] It also has been reported that "intelligent" participation in walking, golf, bowling, swimming, and biking had no influence on total hip arthroplasty.[12] Other safe and acceptable activities following total joint replacements are hiking where rough ground and climbing are avoided and either stationary or regular bicycling. Skiing is common among patients who have undergone total knee replacement, and some have resumed skiing in age-specific competition several years after undergoing total joint replacement.

Several physicians have commented on whether or not the golf swing should be altered following a total hip replacement. Some surgeons recommend that patients be encouraged to develop a classic, free-flowing swing as opposed to a modern, high-torque swing with its emphasis on large shoulder turn and a smaller hip turn on the back swing.[2] Hip rotation can be diminished by a golfer with an open stance who externally rotates the left foot during set up. Although the torque and forces about the hip during a golf swing have not been studied in detail, it was felt that the torque about the left hip for a right-handed player would be greater than that for the right hip. However, there was no statistical difference between golfers who had left or right hip replacements in

terms of pain level during or after playing golf. Professional golfers will likely place the greater stress about their hips because they generate increased power in their swings.

All high-demand sport activity should be discussed individually with the patient. The guidelines shown in **Table 1** may help patients after replacement surgery.

The attitude of many joint replacement surgeons regarding the issue of whether or not patients can or should resume sports was summed up in an eloquent quotation from one of the members of the Hip Society in response to a questionnaire about total joint replacements:[2]

> From a philosophical standpoint, I am a firm believer in helping individuals with arthritis to enjoy a good quality of life. I know how important golf is to individuals of all ages from both a social and competitive point of view. My experience has been gratifying with these individuals. . . . Total joint arthroplasty has allowed the vast majority of these individuals to continue the sport during their retirement years and has clearly improved their quality of living. Isn't that what it is all about?

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The workplace athlete

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ABSTRACT: *Repetitive strain injury is rapidly becoming a problem of epidemic proportions in today's high technology workplace. It can take many forms and require a variety of different treatments. However, it is only with a combined, multidisciplinary approach that this problem can be prevented and tackled.*

Thinking of an athlete, one imagines an individual in a brightly colored, numbered uniform; running, throwing, catching, jumping, or performing other feats of strength, speed, and/or artistic finesse, usually before

Table 1. Disorders of muscle, tendons, and bone associated with repetitive strain injury

- myalgia
- myofacial pain syndrome
- tendinitis
- tendinosis
- peritendinitis
- tenosynovitis
- trigger fingers
- impingement syndrome
- tennis elbow
- golfers elbow
- stress fractures
- periostitis (shin splints)

crowds of delighted spectators. From a physiologic point of view, however, athletes are simply those who are able in a coordinated manner to marshal their musculotendinous systems to perform with a high degree of proficiency and accuracy for extended periods of time. Although many of the neuromuscular connections are governed by genetics to achieve a high level of performance, a long training period is mandatory. However, performance or training can be interrupted or curtailed by injury. An acute injury results from trauma that disrupts bone, nerve, tendon, or muscle. Such injuries typically have a definitive onset and respond to treatment in a set pattern. Injuries can, however, also be caused by over training or overuse; when that happens, injury presentation and treatment is far less defined.

The same kind of injuries that are sustained by "sport athletes" can also be incurred by a different kind of athlete—the workplace athlete. Society and the media have a great deal of awe and admiration for athletes such as Cal Ripken, Jr., who can play in more than 2,000 baseball games without taking a break. Far less attention is paid to the millions of Americans who go to work each day and perform the same highly repetitive tasks for years at a time. For example, a data entry typist working at a speed of 60 words per minute will hit the keys of the computer more than 100,000 times in a six-hour period, and an assembly line worker may repeat the same task 25,000 times per day.[1] For all these workers, each exertion requires a specific movement of the upper or lower extremity, usually with static contractions of the rest of the body. Over time, the amount of physical effort required to accomplish such seemingly mundane tasks is extraordinary. With millions of Americans at computer keyboards each day, it is not surprising that the terms repetitive strain injury (RSI), cumulative trauma disorder (CTD), and overuse syndrome have come into media focus and attention.

Repetitive strain injuries are disruptions of muscle, tendon, bone, or nervous system precipitated or exacerbated by repeated exertions, body movements, or sustained postures. The disruptions are on a microscopic level, but when allowed to progress, they may assume gross macroscopic characteristics. During the past 15 years, RSIs have become an umbrella concept that encompasses many different diagnoses (**Tables 1 and 2**).

Patients with upper extremity RSIs typically present with pain, usually in the neck, shoulder, arm, or hand; fatigue, either generalized or localized; and weakness, numbness or tingling, loss of dexterity, and depression with concomitant loss of sleep. Many patients relate this to the duration and intensity of their work. Symptom development may take weeks, months, or years, and patients commonly cannot pinpoint a specific time of onset. Symptoms may be poorly localized, nonspecific, and episodic, and the causes may be multifactorial. Patients initially may appear to be suffering from simple fatigue. The difference between simple fatigue and RSI, however, is believed to be related to the duration and intensity of symptoms.[2] Fatigue can occur after a work shift and is short-lived, and recovery usually takes place before the next shift.[3] With RSI, recovery between work shifts does not occur and patients may begin their day or week with pain.

Epidemiology

The fundamental question is why so much attention is being paid to RSIs now, when workers have been toiling on assembly lines for nearly 100 years. The answer has to do with the dramatic rise in the reporting of such injuries, which has resulted in skyrocketing health care costs in dealing with these patients. The Bureau of Labor Statistics reported in 1993 that in private industry alone there were 300,000 illness claims for repetitive strain, which represents a 1300% increase since 1982, when just 22,600 cases were reported.[4] It is now estimated that at least $20 billion is spent each year on workers' compensation claims for RSIs of the neck and upper extremity. Taken together, these now represent more than 50% of all occupational injuries.[5] In 1994, the total cost of treatment nationwide for carpal tunnel syndrome alone exceeded $3.5 billion; the average carpal tunnel case cost approximately $27,000 when one includes the medical and legal costs, as well as intangible costs such as lost productivity.[6]

Large epidemiologic studies of the presentation of cumulative trauma disorders indicate a wide variety of workers have been reported as "high risk" for these conditions, including meat packers, cashiers, data entry clerks, musicians, construction workers, electricians, cake decorators, postal workers, assembly workers, garment workers, glass cutters, punch press operators, automobile workers, light bulb manufacturers, and many others. The Occupational Safety and Health Administration (OSHA) estimates that by the year 2,000, fifty cents of every dollar spent on medical costs for workers will be for treating cumulative trauma disorders unless business and industry are willing to meet ergonomic needs in the workplace.[7]

The problem of cumulative trauma disorders is exacerbated by the fact that research in this area is still in its infancy and treatment for these problems by the medical community is haphazard at best, highly invasive, and largely unsuccessful despite our best efforts and intentions. For example, Hadler[8] found vast discrepancies in various parts of the country in the cost of treatment and its degree of invasiveness in patients with the same diagnosis.

There are many theories about the rise of RSIs in this country, some scientific, some cynical. The use of video display terminals (VDTs) in the workplace has risen dramatically during the past ten years. The Census Bureau's figure on domestic personal computer sales and use in the workplace shows an increase from $1.42 billion in 1981 to $15.18 billion in 1987 to approximately $50 billion in 1993. More than 85% of people in offices today use computers in some fashion.[3] With increased pressure to produce more in less time, many tasks have been reduced to their simplest components, and individual workers may have to perform fewer tasks at ever increasing rates. Thus, tasks are less varied and more repetitive. The computer has also increased efficiency in employee monitoring, and workers are thus less able to take necessary breaks.

Many people ask why cumulative trauma disorders did not appear with the use of typewriters. The answer is that many more steps are required to use a typewriter than to operate a computer. Manual typewriters required turning the carriage and pushing a return lever. Even electric typewriters required the user to feed in each sheet of paper and the fingers moved much slower than on a computer keyboard. It is therefore the increased use of the computer that may be the fundamental cause of the problem. Scientific studies have shown that people who use computers for more than four hours at a time are at approximately three times the risk of developing shoulder, arm, or hand disorders.[9] The odds are significantly higher for shoulder- and hand-related musculo- skeletal disorders among supermarket cashiers. Keyboard operators have three times the rate of tension neck syndrome compared to other workers.[5]

Physiology

To understand strategies for dealing with RSI, it is necessary to understand the physiology of this condition and its effects on muscles, tendons, and nerves. While keyboarding, the small muscles of the hands and forearms are constantly moving and contracting in a dynamic fashion, while the muscles at the wrist, elbow, shoulder, and neck are in static contraction to support the moving articulating elements. Prolonged static contraction may increase intramuscular pressure and diminish blood flow. Although static loading of the trapezius reaches only 20% to 30% of maximal contractions, contractions performed over a long enough period of time can result in fatigue.[10] Micro tears eventually occur in the muscle tissue, causing low-grade incomplete inflammatory states. With continued use, continued injury results with chronic pain. In computer users, the tendons of the wrist and fingers are subjected to traction and shearing forces that are related to the degree of muscle contraction, the velocity of tendon movement, the friction between the tendon and adjacent surfaces, and compressive stresses related to contact between tendons and overlying retinacular tissues.[11] Goldstein[10] found that after 500 work wrist cycles, at submaximal exertions and light work activities, the elastic strain on a tendon was equivalent to what would be accomplished by an 80% increase in load. Thus, the tendons begin to fibrillate and shred. There is fibrous thickening of tendon sheaths and tenosynovium and an attempt at

Table 2. Nerve syndromes associated with repetitive strain injury

Syndrome	Affected nerve
• carpal tunnel syndrome	median nerve at wrist
• ulnar tunnel syndrome	ulnar nerve at wrist
• pronator syndrome	median nerve at elbow
• cubital tunnel syndrome	ulnar nerve at elbow
• radial tunnel syndrome	radial nerve in forearm
• anterior interosseus syndrome	motor median nerve in forearm
• posterior interosseus syndrome	posterior interosseus in forearm
• thoracic outlet syndrome	brachial plexus
• vibration hand syndrome	diffuse neuropathy, vasculitis

repair with an aborted inflammatory reaction in the tendons themselves. Blood flow to these tendons is reduced, with fatty degeneration of the tendon tissues. The body is unable to respond with a vigorous inflammatory reaction because there has been no acute injury. With repeated trauma, the tendons continue to deteriorate.[12] The typical stigmata of the "tendon inflammation" as seen in an acute setting frequently are completely absent.

Compressive neuropathy

Nerves that run with tendons in tight fibrous compartments may be affected by repeated micro trauma. Carpal tunnel syndrome forms an interesting model to study for two reasons: it is the most common RSI reported, and it has many of the characteristics of RSI.

The carpal tunnel is a restricted space at the junction of the wrist and hand on the palmar side. The space is bounded on three sides by the carpal bone and on the top by the transverse carpal ligament. Through this space run the median nerve and nine flexor tendons that piston back and forth and power the fingers and the thumb. Filling the space is an investing tenosynovium that surrounds the tendon and the median nerve. This tenosynovium usually is thin and filmy and allows differential gliding of these structures with minimal shear forces, between the median nerve and the tendons. In general, the tendons may move up to 7 cm and the median nerve moves between 10 and 14 mm with extremes of finger flexion and extension.[13] There is normally a pressure differential in the carpal tunnel of 3 mm Hg with the wrist in neutral and 30 mm Hg with wrist extension and flexion.[14] It is believed that repetitive wrist or hand movements can cause prolonged elevated pressure inside the carpal canal. Armstrong[15] described synovial membrane hyperplasia, arteriole and venous hypertrophy with increased epineural density, and increased relative friction between nerve and tendon. This has been shown to occur in the hands held in a fixed position over a prolonged period with repeated wrist or finger flexion. Highly repetitive wrist or finger movement with repeated flexion or hyperextension of the wrist, prolonged strenuous use of the hands with pinching or grasping, wrist ulnar deviation and flexion, wrist extension with forceful pinch, and prolonged exposure to vibration, may result in frictional damage to tendon sheaths with the previously described cellular changes. This may result in pressure of more than 110 mm Hg with hyperextension and resting pressures as high as 35 mm Hg.[14] This has the effect of compressing the nerve in the carpal canal, reducing venous outflow, and causing a miniature compartment syndrome in the median nerve.[16] In addition, there is a marked diminution in the ability of the median nerve to slide normally. Thus, with further movement of the hand and wrist, traction damage to the median nerve results and nerve capacity to accommodate limb movement is reduced. Eventually, shearing occurs in the myelin sheath around the median nerve bundles with displacement and telescoping of myelin away from the center of compression due to these shear forces. This too will interfere with nerve conduction and cause typical complaints of localized pain, numbness, tingling in the distribution at the median nerve (i.e., thumb, index and middle fingers), palm pain, and loss of dexterity. If left untreated, loss of median nerve function will result in permanent dysfunction in the hand.

Carpal tunnel syndrome has been reported to occur more commonly in woman and in those who have more frequent pinching activity with more pinch force or greater extremes of extended or flexed wrist position.[17] Factors reported to be involved in the development of carpal tunnel syndrome include increased forced repetitiveness, sustained abnormal postures, prolonged exposure to vibration, mechanical stress concentration, and prolonged exposure to cold with improperly fitting gloves.[2] Causes for carpal tunnel syndrome that are not occupationally related include rheumatic conditions, diabetes, osteoarthritis, old collies fractures, renal disease, or gout.[18] These factors also must be taken into account when evaluating these patients.

Clinical evaluation

This first step in developing a treatment plan is deciding whether the problem is indeed a manifestation of cumulative trauma or is due to other underlying pathology such as an autoimmune or metabolic disease that affects nerves, tendons, and muscle. It may be difficult to identify the connective tissue involved because often several systems are involved. Most importantly, the clinician must decide if the disorder is work-related or simply work-aggravated. Although some RSIs are highly localized with straightforward methods of treatment, other conditions are very complex. A detailed medical history helps identify possible work-related risk factors (several forms are available to facilitate history taking for these patients). It is necessary to ascertain whether the risk factors have sufficient duration to cause or aggravate the problem and to find an association between the workplace and the onset of the symptoms. It may be impossible to tell whether the patient was truly asymptomatic before beginning the current position.

In some cases, patients have learned the presenting manifestations of RSI and may be using their knowledge for secondary gain. It is necessary to obtain a detailed employ-

ment history to get a sense of the social dynamics at the workplace. It may take several visits to uncover that information because if the problem is diagnosed as resulting from the performance of work-related tasks, the employee is often entitled to workers' compensation benefits.

Employees in a stressful or boring work environment may seek medical attention with an unstated goal of being transferred to another position, being removed from work, or being guaranteed continued medical insurance coverage. Many evaluating physicians are being employed by the workers' companies or by the workers' compensation insurance company. Thus evaluation becomes less objective. Discussing carpal tunnel syndrome will illustrate typical management techniques of RSI and illustrate its pitfalls.

Patients usually present with pain, numbness, and tingling in the thumb and index and middle fingers. Symptoms are frequently worse at night, there may be loss of dexterity, and the patient may complain of being unable to "feel the work" (e.g., computer keys or fine electronic components). Symptoms progress over time and may radiate up the upper arm, which confounds the diagnosis because they could be due to cervical root compression caused by a herniated disc or brachial plexus compression in thoracic outlet. If left untreated, patients frequently begin to complain of injury to their fingers such as burns they do not feel or atrophy of the muscles about the thumb. It may become impossible to abduct the thumb. Symptoms are believed to be caused by work that involves intense repetitive movements of the fingers with the wrist positioned in flexion or extension. Conservative management includes the use of splints, nonsteroidal antiinflammatory drugs, a wrist rest, vitamin B_6, diuretics, and injections of steroids directly into the carpal tunnel. Failing these modes of conservative treatment, a surgical release is recommended. In many cases, the carpal tunnel release alleviates the symptoms, but in approximately 25% residual pain occurs around the base of the incision. This "pillar pain" in the proximal palm can be disabling. Grip strength may also be impaired for many months. When these patients return to work, their symptoms frequently recur.

In a typical case, an employee (who may be asymptomatic) visits the company nurse and asks for ergonomic interventions at the workstation. The nurse may provide an "ergonomic" keyboard or a wrist rest, which may create symptoms because they are used incorrectly. The nurse then refers the patient to the company physician, who advises the worker to take some time off, wear a wrist splint at night, and take antiinflammatory medication. When the employee returns to work, the symptoms also return. The employee is then referred to a specialist. Additional conservative treatment follows. Failing this, electrodiagnostic tests, electromyography, and nerve conduction studies are ordered, which may or may not show the presence of carpal tunnel syndrome (these tests are approximately 85% sensitive and specific). All too frequently, the patient ends up in the operating room. There is initial symptom relief, and the patient returns to light duty, then regular work, and the symptoms recur. The patient is viewed as a high risk workers' compensation case and is eventually laid off. If the workers' compensation claim is denied, an attorney becomes involved and there is a court hearing. A rehabilitation nurse for the insurance carrier steps in for a permanent disability evaluation and a second medical opinion is sought for a permanent disability payoff, which may take many years. The process literally consumes the patient's life; there is a loss of self-esteem and income, causing home strife and depression. Patients see themselves as unemployable and end up as the taxpayers' burden. This scenario, which is played out ten of thousands of times across the United States on a yearly basis, reflects the haphazard and reactive way that cumulative trauma disorders and particularly carpal tunnel syndrome are treated in this country.

The response of the "system"

Because the system was designed to deal with acute injuries, employers and workers' compensation carriers have great difficulty in dealing with workers suffering from RSI. An acute injury has a definite time of onset, an identifiable cause, a clear-cut plan for treatment with specific treatment guidelines, and a clearly defined time when the worker should be able to return to the job. An RSI has none of these clearly defined conditions. Patients frequently cannot determine a definite date of onset, symptoms vary, and workers often have signs of depression. The perception of malingering and secondary gain pervades. Many employers will claim the employee is functioning poorly in general and will search for reasons to lay the employee off. Treatment frequently is protracted and there is no clear-cut time for return to work. In many cases, employers are unwilling to make accommodations and will not allow return to work until the employee is "100%." Unions often get involved, OSHA investigates, litigation follows, and the cost of treatment escalates.

In general, the risk factors for cumulative trauma include abnormal postures, mechanical and physical stresses, repetitiveness, and forcefulness.[12] Ergonomic interventions in the

workplace can lesson risk factors that lead to RSIs; however, a complete discussion of ergonomics is beyond the scope of this review. Pertinent principles will be presented to illustrate the basic concepts. Studies have shown that working in nonneutral postures leads to musculoskeletal disorders. Kilbom[19] concluded that teaching neutral work postures and movements should be given high priority. For example, correct posture for workers using a video display terminal (VDT) include resting the feet flat on the floor or on a foot rest; keeping the knees level and slightly lower than the hips; and maintaining the shoulders in neutral, the elbows in 100 degrees of extension, and the wrists in neutral. The correct height of the keyboard is at the level of the umbilicus. Placement of the keyboard at this level can prevent neck strain, strain on the trapezius muscle, and any increased pressure on the ulnar nerve at the elbow. Caution must be exercised when using a wrist rest as its use may artificially raise the head, increasing neck strain.[20] If the worker's chairs too high or too low, the result may be upper arm abduction or shoulder elevation that can lead to cervical brachial strain and rotator cuff problems.[21] The VDT should be positioned so that the head is tilted downward approximately 10 degrees, and the eyes should be 20 to 26 inches from the screen. Any hard copy work should be elevated to the level of the screen with a document holder to prevent downward flexion of the neck. Employees should be taught to touch type and to avoid looking down at the keyboard.

The back should be well supported and allowed to extend backward from the vertical by approximately 10 degrees. The chair should be easily adjustable and movable with functioning casters. The forearms should rest on a padded surface. Sharp table edges may cause nerve compression; thus, rounding out edges, installing pads or cushions, or using soft elbow supports may be helpful. When using the telephone and keyboard simultaneously, a telephone headset may prevent chronic side-to-side neck bending and neck strain. Excessive force while keyboarding may cause injury; thus, a light keyboard touch may significantly increase worker speed and at the same time "lighten the load."

Managing repetitive strain injuries

To win the battle against RSIs, a global, coordinated, multidisciplinary approach is mandatory. Treatment may require weeks, months. or years to rehabilitate fully. It involves workers and management working with occupational physicians, ergonomic engineers, industrial psychologists, and employee team coordinators. The approach should include surveillance and intervention with preemployment screening, workstation modifications, job rotation, enforced rest periods, work habit modification, and a fitness and exercise program. Employers need to become knowledgeable about ergonomics and employees need to be trained to modify their workstations and practice neutral postures. There needs to be a closer working relationship between industry and medicine. Such a relationship could facilitate preemployment testing of prospective workers and help determine the ability of individual workers to perform specific tasks. Once employment begins, there are various methods available for assessing the risk of developing repetitive strain and monitoring these risks.[22]

Worker education

Training employees about risk factors associated with repetitive strain and measures needed to combat them allows workers to design their own optimal work environment. Development and instruction on specific guidelines, which should be monitored by management, and continuing education need to take place in the actual workplace. Team leaders from the working group can assist, monitor, and augment the ergonomic measures that have been implemented and stress the necessity of workers' taking regular stretching breaks. The education of managers and supervisors assures that there is continued management support to provide meaningful alternatives to work and job restrictions in the company. The ideal ergonomic team comprises management, company safety officers, team leaders, professional ergonomists, and even medical practitioners to coordinate all ergonomic interventions.[23]

Employee exercise program

Studies have shown that RSIs occur more frequently in people who do not follow a regular exercise program. Studying computer workplace design and fatigue, Tadano[24] suggested that mini exercise breaks throughout the work day not only diminish the incidence of repetitive strain, but actually increase worker productivity and prevent productivity "drop off" that frequently occurs towards the end of the day. In general, workers should not keyboard for more than 30 minutes at a time without taking a two-minute break. There are many published "mini break" exercise programs that allow workers to stretch the neck, shoulders, forearms, hands, and wrist muscles at the work station. There are also "maxi exercise breaks" (five minutes) that employees can do twice during the day.[25] Other options are job rotation, introduction of other tasks into a job cycle, and limitation of work hours. Many companies have adopted in-house fitness programs and facilities to increase employee fitness capac-

ity. Any exercise program should include stretching and relaxation techniques to reduce stress in the neck, shoulders, arms, hands, and low back. The benefits of such programs include improved posture, breathing, joint flexibility, muscle flexibility, and blood flow. Pictorial exercise handouts and posters displayed throughout the workplace may also be useful. Many software companies have developed on-line exercise programs that flash on the screen "reminding" the worker to stop work and exercise.

Socioeconomic impact of ergonomic intervention and education

Studies have shown that an ergonomically correct work environment, employee education, and the adoption of a simple exercise program can significantly decrease workers' compensation costs. Indeed, the study by Tadano[24] in 1990 demonstrated a dramatic decrease in the incidence of repetitive strain in a company that used only employee monitoring and job rotation. Schierhout and coworkers[22] also showed a reduction in RSIs simply with surveillance methods and ergonomic educational programs. Employers are finding that money spent on ergonomic changes is repaid in lower disability costs and increased productivity. OSHA studies have shown that an ergonomically designed work station can increase an individual's performance by an average of 24%.[26] Francis[27] found that among government procurement clerks, an ergonomically designed environment resulted in a 20% increase in productivity. Another study found that a good quality ergonomic chair can increase VDT user productivity by 40% to 80%.[28]

Oxenberg[29] calculated that a daily increase of only 20 minutes of work due to ergonomic intervention may benefit the company up to $2,000 per year per employee. The cost savings of ergonomic interventions are evident immediately in terms of increased productivity and have been shown to reduce significantly the occurrence of injuries. Schneider[30] showed that when one insurance company with 800 workers improved its work station design, it decreased absenteeism from 4.4% to 1.6%, increased efficiency in processing paperwork by 137%, and saw a 9% decrease in errors. A study at a major European telephone company found that introducing ergonomic furniture cut operator turnover rates from 35% to 2% per year, saving the firm extensive recruiting and training costs.[31] Although many of these reports are anecdotal, they tend to demonstrate that ergonomic workplace interventions can significantly decrease the incidence of workplace injuries and reduce the need for extensive medical treatment.

Controversies

There is still international controversy about the true nature of RSIs and whether they should be considered work-related. This is in part due to the lack of outcome-based, prospective, controlled studies to determine effective treatment, which in turn is partly due to lack of consensus among practitioners as to how best to deal with the problem. Several states (notably Virginia) have followed concepts proposed in Australia claiming that RSIs are not work-related at all. In Australia, workers with RSIs do not receive workers' compensation benefits. This presupposes that RSI is purely a psychosocial illness with no basis in organic medicine. That view is further supported by the fact that many clinical presentations of RSI have no neurologic or physical findings, although the patients complain of pain, numbness, and discomfort. Objective tests often are negative as well. The lack of definitive physical findings, however, may be because tools have not yet been developed to detect the pathology. It has been suggested that RSIs occur primarily in individuals who have low pain tolerance; work in repetitive, monotonous jobs; and have many personal problems unrelated to their occupation.[32] Although that may be true for some patients, no scientific evidence suggests that it is true for the majority of patients. In my experience, repetitive strain problems commonly occur in those who are self-employed and highly motivated and who have a great deal of job satisfaction. They are terribly distressed over their inability to function properly.

Repetitive strain injury is a broad, multifaceted condition. Sweeping it under the legislative carpet will not lower the incidence of employee pain or increase worker productivity. It will merely silence the complaints or shift medical coverage for the problem to private insurance carriers; managed care in turn will deny benefits for these problems. Without a system to prevent and when needed treat repetitive stress injuries, patients will not improve and ultimately company productivity suffers. These problems must be addressed directly and primarily in the workplace. Every attempt must be made to return workplace "athletes" to their jobs with the appropriate modifications.

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Spine problems in the athlete

John T. Stinson, M.D.

ABSTRACT: *Athletic performance is frequently compromised by disorders of the spine. This article discusses back and neck problems commonly seen in athletes and outlines effective treatment requirements.*

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Effective management of spinal disorders in athletes requires an appreciation of the many circumstances unique to their lifestyles and expectations. The usual six weeks of minimal intervention appropriate for the average patient may not be acceptable to an individual with an athletic scholarship or professional contract on the line. Also, what might be a "good result" for a mailroom clerk might be disabling for a distance runner or platform diver. On the other hand, the qualities of peak physical conditioning and high motivation may make the expectation of rapid recovery not unrealistic.

Most athletic injuries to the spine are self-limiting soft tissue insults that usually respond well to continued but modified activity through a nonpainful range in a phased continuum. It is estimated that only about 10% of sports injuries are related to the spine.[1,2] The spine, however, is vulnerable in any sport, contact or noncontact. The vulnerability is readily understood when the spine is viewed as a force couple between the upper and lower extremities that both absorbs and transmits forces while providing support and balance.[3] The spine is not simply a passive structure that relies on the legs to carry it. Rather, through an elaborate sequence of energy transformation, it actively drives the lower extremities. The spine transforms lateral bending into the axial torque needed to rotate the pelvis.[4] This relatively atavistic function of the spine in the human was the primary engine of locomotion in our fish ancestors. Injuries to the spine affect the limbs and injuries to the limbs affect the

spine and this kinetic link has been quantified by a daunting array of technologies whose description is beyond the scope of this review.[5]

Athletic injuries to the spine usually result from one of two mechanisms: an acute traumatic event, or repetitive activity that causes fatigue injuries. The stress failures generated by repetitive microtrauma are far more common. Overuse injuries to the spine have been documented in many contact and noncontact sports including gymnastics, ballet, figure skating, hockey, football, weight-lifting, and rowing.[1,2,6-9] Back problems may occur in 30% of female gymnasts, 50% of interior linemen, and 82% of elite female rowers.[8,10-12]

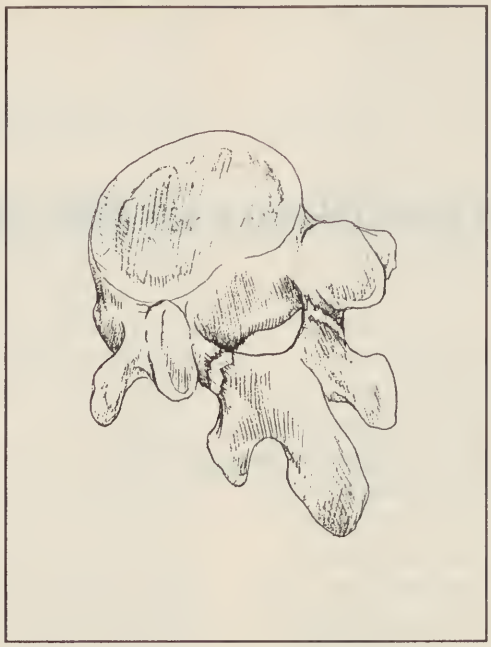


Figure 1. Spondylolysis with bilateral pars defects.

The basis for a given athlete's vulnerability to macro- or microtrauma is often not clear. Most injuries may be explained by poor conditioning, inadequate warm up, poor technique, and abnormal anatomy or tissue weakness at the heritable ultrastructural level. Singly or in combination, these factors can lead to spine problems in the athlete.

Disk injuries

Many sports injuries impact on the intervertebral disk. The nucleus, annulus, and vertebral endplates absorb loads and effect stability while permitting flexibility. The nucleus plays a crucial role in shock absorption by transferring vertical forces into ones that are radially directed to the annulus. Because the adult disk is avascular, the metabolic needs of its cellular components are served only by passive diffusion through the endplates. Just as transport of nutrients and waste products in and out is aided by exercise, nutrition and cell matrix synthesis are hobbled by static loading and creep. Excessive loading can result in endplate microfractures that when healed can impede transport, which explains the endplate damage and back pain complaints in weight-lifters, wrestlers, and certain track and field athletes.[6,7,13] The lumbar flexion required for these activities increases the lumbosacral angle and exaggerates anterior shear forces.[3]

Athletes (especially adolescents or teenagers) with a symptomatic disk protrusion usually do not present with classic symptoms of unilateral sciatica.[13,14] There may only be complaints of buttock or hip pain or low back stiffness. Results of a physical examination are often nonspecific, and neurologic deficits are unusual. Findings may be limited to stiffness, scoliosis, or unilateral hamstring spasm.

Conservative treatment is recommended and is effective in more than 80% of cases. A brief period (2-3 days) of bed rest coupled with nonsteroidal antiinflammatory drugs, progressive mobilization, and possibly bracing are measures usually quite effective in returning the athlete to full activity. Full contact sports should be avoided for six months after an episode of discogenic sciatica.

Epidural steroids may help in more refractory cases. Surgery is reserved for the rare patient with a progressive neurologic deficit or cauda equina syndrome, or for whom conservative treatment fails. Decompressive surgery should be minimally invasive with no disturbance of the associated ligaments and facet joints. The natural history of disk disease in the younger athlete has not been well studied, but there appears to be a higher incidence of continued back complaints as adults.

Lumbar fractures

Sports-related lumbar fractures affect either the vertebral body or the posterior elements. The vast majority of vertebral body fractures in the athlete are compression injuries to the anterior portion of the body, which is relatively weak due to an absence of horizontal trabeculations. Rapid flexion, especially associated with axial compression, is usually causative. Sky diving is associated with a high incidence of spinal compression fractures,[15] and these injuries also are common with the seated fall in alpine or telemark skiing.[16]

Skeletally immature athletes with open ring epiphyses are vulnerable to endplate fractures through which the nucleus prolapses into the vertebral body. With less compressive strength than the disk, the endplate fails first, producing a Schmorl's node.[17] An anterosuperior herniation and endplate fracture may result in the separation of a triangular segment of the body, producing the so-called limbus vertebra. Also, the growth plate may separate and slip posteriorly, producing back pain and sciatica. A prolapsed growth plate may be seen on plain radiographs as a bony ridge on the posterior body superiorly or inferiorly.[18]

Other common fractures include those of the transverse or spinous processes. They may result from a direct injury or avulsion from a sudden strong contraction of the psoas and quadratus lumborum.

Fractures should be well healed before exercise is undertaken. An orthosis will allow mobility and provide comfort for the six to eight weeks usually necessary for fracture healing.

Neural arch defects

The tensile and shear forces across the lumbar pars interarticularis are focused over an area measuring less than one square centimeter.[19] The pars is the axis of rotation and is prone to stress fracture (**Figure 1**). Stress fractures of the pars differ from others in that they develop at an earlier age, have a hereditary disposition, and do not heal readily. Spondylolysis occurs most often at L5 and is often unilateral. Most lesions are asymptomatic and may be seen in 5% of the general population.[20,21]



Figure 2. Spondylolisthesis at L5-S1.

The athlete with symptomatic spondylolysis or spondylolisthesis will have back pain and hamstring spasm, which may not be easy to demonstrate in a very flexible individual. Radiographs usually confirm the diagnosis, but may be negative early in the process, during which time a bone scan will be diagnostic. Any athlete with refractory back pain of longer than six weeks' duration requires scintigraphy to rule out a stress fracture of the pars.

Bilateral pars defects can lead to slippage or spondylolisthesis (**Figure 2**). Symptomatic spondylolysis or spondylolisthesis in athletes is rarely progressive, and the development of instability would be unusual in this patient population. A relatively high incidence of neural arch defects is found in athletes, especially in gymnasts, interior linemen, and martial artists.[8,9,12,20,21]

Conservative treatment is effective in alleviating symptoms and allowing a return to sports. Mildly symptomatic lesions respond to a period of activity limitation and an exercise program to strengthen the abdominal muscles and stretch the hamstrings. An antilordosis brace works very well in resolving pain and allowing the lesion to heal.[22] Even the patient who fails to heal the defect can return to full contact sports as long as there are no symptoms and full flexibility returns. Surgical fusion is indicated for the rare slippage that is progressive or is greater than 50% on presentation. Refractory low grade lesions may be treated by the more limited direct repair of the defect, avoiding the loss of valuable lumbar motion concomitant with successful fusion surgery.[23]

Burners and stingers

Injuries to the cervical disks, brachial plexus, and peripheral nerves can result in neurologic signs and symptoms involving the upper extremity. These injuries often go unreported and untreated. In a survey of 6 Division III football teams, Torg and Reilly[24] reported a 52% incidence in one calendar year and only 10% of players being evaluated by the team physician.

Burners typically are sustained during head and shoulder contact. The athlete complains of burning pain, numbness, paresthesias, and often temporary paresis from the base of the neck to the hand. Symptoms usually are nondermatomal in distribution, and weakness may not be obvious until several days after the injury.[24] Brachial plexus injuries are more likely to occur in younger patients with less developed musculature. They are usually traction injuries with the neck flexing laterally while the shoulder is depressed to the side of involvement. Spurling's test is negative with a brachial plexus injury, and positive Spurling's elicits paresthesias with axial compression of the cranium.

Cervical root lesions result from compression of the nerve root itself or its dorsal ganglion in the intervertebral foramen. The lesions generally are seen in an older age group and are associated with degenerative changes seen on radiographs. Hyperextension with lateral flexion is the most common mechanism. Spurling's test is positive. If persistent symptoms warrant magnetic resonance imaging, developmental stenosis and/or disk degeneration or herniation is usually revealed.

For acute treatment, the spine should be immobilized, especially if symptoms are bilateral or involve the lower extremities. Symptoms usually abate rapidly. A full, pain-free range of motion, normal strength, and a normal neurologic examination are necessary before the patient can re-

sume competition. Recurrent symptoms mandate careful follow-up and may well preclude further athletic participation. For brachial plexus injuries, prevention is centered on an aggressive neck and shoulder strengthening program. Neck rolls, high profile shoulder pads, and devices such as the horseshoe collar help prevent injuries by restricting range of motion.[24]

Conclusion

Athletic performance is frequently compromised by dysfunctional status of the spinal column. Most athletic back and neck injuries are self-limited soft tissue injuries that respond to conservative measures. Effective rehabilitation programs tailored to athletes stress a graduated return to a competitive activity level and sports-specific preventive measures.[25] Athletes who do require spinal surgery are not necessarily facing the end of their career. There is an increasing cohort of athletes, both professional and amateur, who have been treated successfully with newer, less invasive procedures.

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The imaging of sports injuries

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ABSTRACT: *Radiology plays a critical role in the evaluation of a traumatized athlete. The goal is to provide as much information as possible to allow timely and appropriate patient care. To select the best "diagnostic pathway," close communication between the clinician and the radiologist is mandatory. This saves time, money, and radiation exposure. Although plain radiographs remain the primary imaging technique for the diagnosis of musculoskeletal trauma, certain injuries can be more fully evaluated by fluoroscopy, arthrography, nuclear medicine scanning, computed tomography (CT), arthrography followed by CT, or magnetic resonance imaging. This article reviews the uses of each imaging technique in the diagnosis of musculoskeletal trauma and its most appropriate application. A discussion of pediatric skeletal trauma is included.*

Adults

The shoulder. Injuries to the upper extremity are fairly common. Most of these injuries can be diagnosed by conventional radiography. Additional imaging techniques are usually performed to assess subtle fractures; to evaluate ligaments, tendons, or cartilage; or to determine the extent of an injury.[1,2] Radiographs of the glenohumeral joint should include a standard anteroposterior (AP) view or true AP view (Grashey), which is useful for detecting joint space narrowing or posterior dislocations. A supplemental lateral view is mandatory. It can be the scapular Y-view, transthoracic projection, or the axillary view. I usually obtain the axillary view. Sometimes difficult to perform on the acutely injured patient, this view can be modified by having the patient grasp an

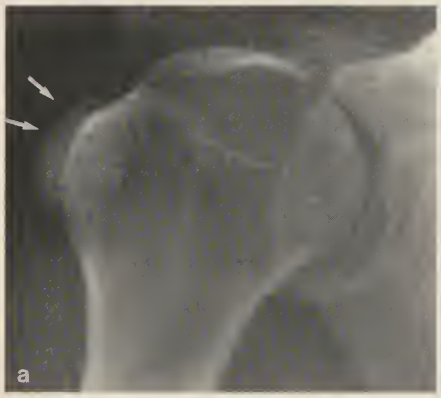
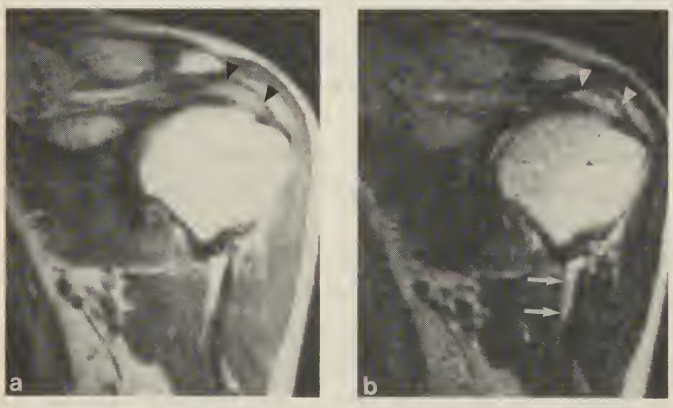


Figure 1. CT arthrography is an excellent way to evaluate the joint. Contrast and air cover all surfaces and allow close scrutiny of articular cartilage, the capsule, and glenohumeral ligaments. Technique is important because air bubbles (arrows) can mimic loose bodies.

intravenous pole for partial arm abduction. The axillary view allows evaluation of the glenohumeral joint, the humeral head, and the glenoid rim, and it is especially valuable in cases of dislocation.[1-3] Fractures of the humerus, clavicle, and sternum are detected on radiographs. Complex fractures can be optimally imaged by computed tomography (CT). The axial images generated by CT detect fragment displacement, angulation, and status of the articular surface—information needed particularly if surgical intervention is being considered.

Anterior dislocations account for 95% of shoulder dislocations and are usually evident on standard radiographs. An associated Hill-Sachs lesion of the humerus is best demonstrated on an AP internally rotated view. Posterior dislocations are often subtle on AP radiographs and frequently missed. A true AP film will show joint space narrowing, which is an abnormal finding and suggestive of a posterior dislocation in the appropriate clinical setting. Additional views (i.e., scapular Y, limited axillary, or posterior oblique) will show the dislocation as well as the associated impaction fracture of the medial humeral head. Following a dislocation, instability may result from damage to supporting soft tissue structures, humeral head fracture, glenoid fracture, or intraarticular fragments; these five repeat plain radiographs at a subsequent visit are appropriate.[4-6]



Figures 3a and 3b. T1 (a) and T2 (b) oblique coronal images of the left shoulder showing focal thickening and increased signal within the substance of the rotator cuff (arrowheads) consistent with stage 2 impingement (fibrosis). Each image must be followed to determine if the high signal extends through the entire width of the cuff (a full tear). Arrows depict biceps tenosynovitis. Biceps abnormalities can mimic cuff pathology or occur in addition to cuff abnormalities.



Figures 2a and 2b. Radiographs showing a large ovoid density in the region of the distal portion of the supraspinatus tendon (commonly termed calcific tendinitis or hydroxyapatite deposition disease).



The gold standard for evaluating shoulder instability is controversial, but most radiologists rely on the double contrast CT arthrogram. Before contrast is injected into the joint, preliminary radiographs are obtained to assess for abnormalities (**Figure 1**). After contrast and air are injected into the glenohumeral joint, plain radiographs are obtained to evaluate the status of the rotator cuff. CT imaging is performed immediately after the arthrogram to evaluate the labrum, fractures, and capsular mechanism[6-10] (**Figures 2a and 2b**). Three-dimensional reconstruction of CT images is now available. For complex fracture-dislocations, it may yield valuable additional information.

During the past five years, magnetic resonance imaging (MRI) has gained acceptance as the modality of choice to image the rotator cuff and biceps tendon, replacing other imaging techniques such as ultrasound.[11-15]

Instrasubstance pathology of the tendons can be identified, as can partial and complete tears. The variety of parameters available to visualize normal anatomy and pathology, soft tissue resolution, and multiplanar capability of MRI make it an ideal imaging modality to examine the shoulder. The neurovascular bundle (the brachial plexus) and soft tissue injuries such as fluid collections and intramuscular hemorrhage can be visualized. Magnetic reso-



Figure 4. A full-thickness tear within the "critical zone" of the rotator cuff. High signal fluid extends from the glenohumeral joint (arrow) through the tear into the subacromial-subdeltoid bursa (arrowheads).



Figure 5. Axial T1 image of the left shoulder, with arrows marking the normal glenoid labrum anteriorly and posteriorly.



Figure 6c. T1 coronal oblique image of a large Hill Sachs lesion that can be identified and measured. The lesion occurs secondary to an anterior dislocation.

rotator cuff for tears and impingement is well documented in the radiologic and orthopedic literature. As the learning curve continues, more radiologists are comfortable evaluating the labrum and capsular mechanism of the shoulder by MRI with improved accuracy and specificity (**Figures 3-6**).[15-18] Magnetic resonance arthrography is also being used to assess the status of the labrum and to evaluate patients with symptomatology, especially after rotator cuff repair. Some musculoskeletal radiologists advocate using a diluted gadolinium solution for injection into the glenohumeral joint.[19-23] Gadolinium reduces T2 relaxation times of tissues so only T1 images need to be performed, thus reducing examination time and eliminating lengthy T2 sequences. Also, saline can be injected into the shoulder joint, which mimics an effusion and coats intraarticular surfaces as well as delineating a partial or complete rotator cuff tear.[24]





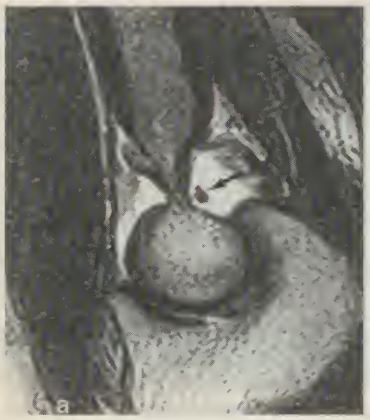
Figures 6a and 6b. Axial CT (a) following a double contrast arthrogram readily identifies an anterior glenoid labral tear (cartilage), termed a Bankhart deformity (arrow). It may consist solely of cartilage or of both cartilage and the underlying bony glenoid portion of the scapula. MRI (b) in the same patient is markedly suboptimal due to the patient's large size and technical factors such as patient positioning, large field of view, and improper shoulder coverage due to poor coil placement. The labral tear is easily missed.

The elbow. As with the shoulder, plain radiographs are the imaging modality of choice to evaluate elbow trauma. A minimum of two projections is necessary, including a lateral view with the elbow flexed 90 degrees and an AP extended view. Oblique views are helpful and may detect fractures not seen on the other two views. Careful evaluation of the fat pads is mandatory. Displacement of the fat pads indicates an intraarticular fluid collection, due either





Figures 7a and 7b. A patient with continuous left elbow pain presented with a lateral flexed radiograph of the elbow (a). The only abnormality was cortical thickening or sclerosis (arrow), a nonspecific finding. A 3-phase bone scan with coned down views of both elbows (b) comparing the normal right side with the left, which shows increased flow, pooling, and delayed static radiotracer uptake in the distal medial condylar region of the humerus (arrows). Close correlation of the findings and the specific symptomatology (night pain relieved by aspirin) led to resection of an osteoid osteoma. The nichus is obscured by the abundant reactive sclerosis.





Figures 8a and 8b. In a baseball pitcher complaining of right elbow pain, a sagittal gradient echo T2 image (a) shows a posteriorly located loose body within the joint (arrow). A coronal image (b) shows the osteochondral defect of the capitellum (small white marrow). Medially the common flexor tendon and collateral ligament complex are thickened (arrowheads), compatible with medial epicondylitis. Beneath these structures is an edematous entrapped ulnar nerve (curved arrow), enabling the diagnosis of cubital tunnel syndrome.

to inflammation or hemarthrosis secondary to trauma.[25,26] For subtle fractures, fluoroscopy can help visualize the line "en face," particularly for chisel fractures of the radial head. Under fluoroscopic guidance, a radiograph can be obtained to document the findings.[27]

Arthrography is indicated when evaluating for osteochondromatosis, osteochondritis dessicans, capsule and ligament tears, fracture fragments, or articular cartilage abnormalities. Contrast and air cover the cartilage and bony surfaces, allowing for precise evaluation.[28-31]

Bone scan may be helpful if the initial plain films are negative and the patient's symptoms persist (**Figures 7a and 7b**). Bone scan is extremely sensitive for detecting abnormalities and localizing the region of abnormality.[25] Bone scan, however, can be nonspecific. Increased radio tracer uptake can be seen in the inflammatory or degenerative arthridites, marrow disorders, and traumatic and sports injuries as well as avascular necrosis (AVN).

A positive bone scan generally leads the physician to evaluate further the abnormal area by additional radiographic procedures. Correlation of the symptomatology as well as consultation with the radiologist should result in selection of the appropriate imaging modality to diagnose the suspected abnormalities.

Magnetic resonance imaging has become more popular and acceptable in evaluating the elbow. Anatomy of the soft tissues including tendons and supporting ligaments is clearly depicted by high field strength MRI examinations with thin (2 to 3 mm) slices. In addition, bone and soft tissue pathology, intraarticular abnormalities, fractures, and infection can be studied by MRI. For instance, disruption of the collateral ligaments, distal biceps tendon abnormalities, and neurovascular entrapment syndrome can be diagnosed (**Figures 8a and 8b**).[32-36]

The wrist. Plain films of the wrist and hand usually show a fracture or dislocation. They can be supplemented by fluoroscopy to delineate better a fracture and its extent, particularly if extension onto the joint is possible and might alter treatment. Motion studies of the wrist can be performed with fluoroscopy to detect instability patterns. Computed tomography is helpful for detecting subtle carpal fractures not clearly detected on radiographs and is also of use in follow-up of fractures to assess healing or nonunion.[26,29]

Arthrography can be performed as a uni-, bi-, or tricompartment study. It is very effective for evaluating the status of interosseous ligaments and the triangular fibrocartilage complex (TFCC).[24,27] Bone scan is used to detect marrow disorders, including osteonecrosis. It is also used when initial screening studies are negative but the patient remains symptomatic.[37]

Today, MRI is as clinically effective as arthrography for evaluating the carpal compartments and is more specific than bone scan in detecting osteonecrosis (see **Table 1**).

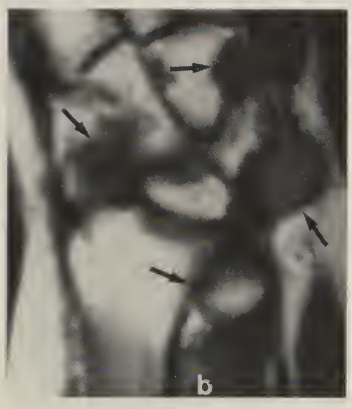
The ability of MRI to display images in multiplanar projections and its noninvasiveness make it a valuable tool for detecting wrist and hand abnormalities and evaluating and following various treatment modalities (**Figures 9a and 9b**).[38-40]

The hip. Traumatic injuries to the hip and surrounding structures are frequently not detected by radiography until an advanced stage. The variety of imaging modalities available to examine the hip have various strengths and weaknesses. Radiographs will depict occult fractures[41] and dislocations, but they have limited value in assessing the intraarticular space and surrounding soft tissues.[26]

Table 1. Magnetic resonance imaging applications for the wrist/hand

- detection of subtle fractures
- carpal tunnel syndrome
- carpal instability
- tendon status
- tumors (e.g., ganglia)
- arthritis (cartilage and ligament destruction, pannus, etc.)
- osteonecrosis, lunatomalacia
- postsurgical evaluation





Figures 9a and 9b. In a young woman who presented with distal forearm and wrist swelling and symptoms of instability, a posteroanterior radiograph (a) shows multiple small calcific densities (white arrow). There is also a rotary subluxation of the scaphoid with a "signet ring" appearance (small black arrows) and scapholunate dissociation (curved arrows). A T1 coronal MRI (b) shows multiple intraarticular bodies of variable signal (arrows), some calcified and some cartilaginous, causing erosions of adjacent bone as well as the ligamentum disruptions and instability seen on the radiograph.

Arthrography (with or without CT) is a good diagnostic tool to evaluate intraarticular structures, to assess for loose bodies or synovial masses, and to sample joint fluid (aspiration of joint fluid is done when the needle tip is placed within the joint). However, hip arthrography is used infrequently in adults today. Its major application is for detecting loosened prostheses. Even in this setting, the procedure can be difficult: the needle placement can be limited by ectopic bone formation, extraarticular bursa, or a severely deformed or contracted capsular space. Air bubbles created during the arthrogram can be easily mistaken for intraarticular loose bodies.[28,29]

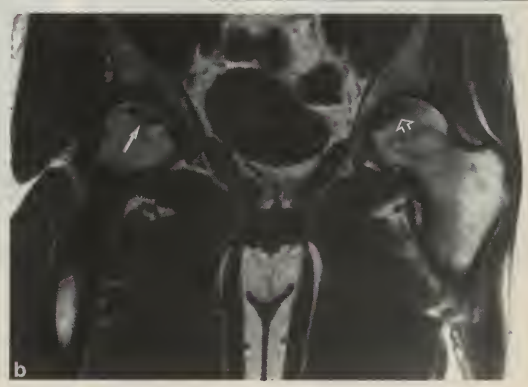
When radiographs of the hip are negative or equivocal, further imaging procedures are indicated. If a definite history of trauma is obtained and a fracture of the pelvic ring, acetabulum, or femoral neck is suspected, a bone scan can be quite useful. In normal young and middle-aged athletic adults, the scan should definitely be positive with 48 hours after a hip fracture. Again, the scan is sensitive but often nonspecific. Stress-related injuries, synovitis, periosteal injury, and AVN will produce an abnormal scan. Bone scan is also limited in older patients, particularly in those who have vascular disorders. Because bone scan lacks specificity, synovitis, arthritis, and degeneration in particular can mimic a fracture.[37,42,43]

Further imaging by CT or MRI may be indicated. Computed tomography is very useful for detecting complex fractures and surrounding structures. It can display subtle cortical abnormalities. In addition, pelvic structures can be readily evaluated, and CT is useful to detect the 3-D nature of acetabular fractures and the fine congruity of articular margins. Computed tomography can detect small amounts of calcification or tiny bone fragments in the joint that may be missed by MRI.[44,45]

In cases of femoral neck fracture (stress insufficiency or through-and-through), MRI has improved resolution, thus allowing the diagnosis to be made earlier than when bone scan is used. Also in the first 48 hours after trauma, a bone scan may be normal. Magnetic resonance imaging is excellent for detecting nondisplaced hip fractures. A fracture line will be low signal (black) and surrounded by marrow edema (bright on T2 or inversion recovery images). Joint effusions, bursal collections, shearing of soft tissue interfaces deep to fascia, marrow alterations, and internal derangement are easily assessed by MRI.[44,46-49]

Most radiologists agree that MRI is more sensitive for early changes of AVN than either bone scan or CT. This does not mean that every patient suspected of having AVN will need an MRI. Magnetic resonance imaging should be used if other studies are negative. But if AVN is highly suspected, MRI may provide an early diagnosis, thus improving chances of saving the femoral head (**Figures 10a and 10b**). If other





Figures 10a and 10b. Radiograph scan (a) in a young runner with right hip pain showing very faint sclerosis in the right femoral epiphysis along the articular surface. MRI of both hips (b) shows osteonecrosis of both femoral heads. There is no subchondral fracture or femoral head collapse, which is a good prognosticator for treatment.

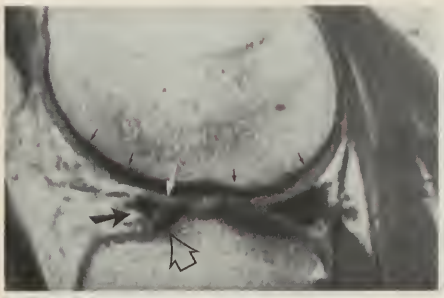


Figure 11. Magnified sagittal T1 image of the knee showing a normal variation of the transverse geniculate ligament that is seen in almost 30% of the normal population. On MRI, it may appear as an oblique or vertical line of high signal within the anterior horn of the lateral or medial meniscus and is often misidentified as a tear. Note the normal appearance of the posterior horn of the meniscus, which has a sharply defined *V* configuration.

studies are positive, MRI can add information pertaining to staging of AVN, a predictor of femoral head collapse before its occurrence, or detection of other conditions that are a source of hip pain which are not obvious on other studies. These findings include alterations of hyaline cartilage, effusions, dysplastic syndromes, and identification of masses or tumors about the hip.[49-55]

Table 2. Indications for magnetic resonance imaging of the knee

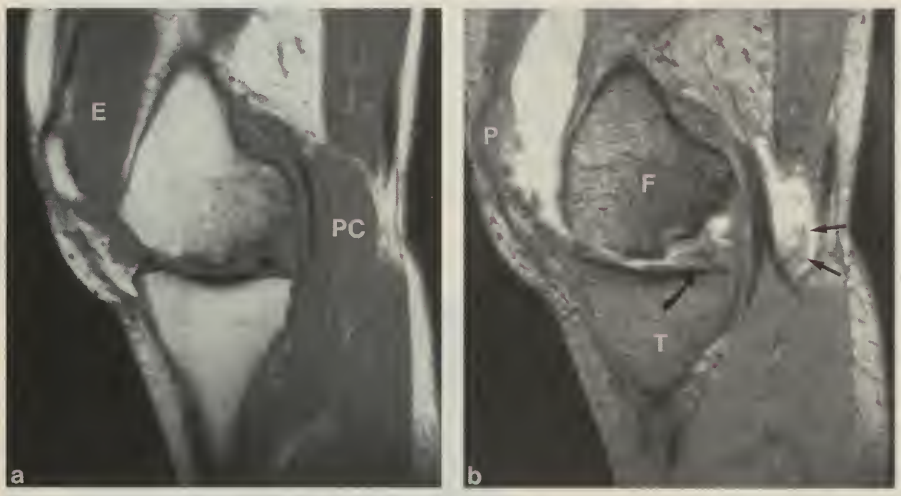
- internal derangement
- meniscal tears
- ligament tears (cruciate, collateral)
- cysts (popliteal, meniscal, bursa, ganglion)
- extensor mechanism injuries
- arthritis
- trauma
- fractures
- stress phenomena
- osteochondral injuries (detection of stability)
- avascular necrosis
- loose bodies
- plica
- infection
- pigmented villonodular synovitis
- compartment syndromes

The knee. Plain films obtained at the time of an acute knee injury include cross-table lateral film, standing AP, both AP obliques, and the "sunrise" patella view. "Tunnel" views are optional. Most fractures, dislocations, and intraarticular loose bodies (if calcified or ossified) will be identified.[25] A patella view is the only way to assess patella malalignments. Since the advent of MRI, the need for arthrography, CT, and CT arthrography of the knee has steadily declined (**Table 2**).[27,28]

Three-dimension volume imaging and radial imaging have improved the detection of meniscal tears (**Figure 11**). Magnetic resonance imaging allows complete evaluation of the normal and pathogenic conditions of soft tissues, ligaments, cartilage, bone marrow, and the tibial plateau. For evaluating tibial plateau fractures, most radiologists recommend MRI rather than CT (**Figures 12-15**).[55-65]

Kinematic imaging of the knee is available at many MRI centers to evaluate the mechanism of the patellofemoral joint and normal ligament function. Some authors advocate MR arthrography. The procedure involves the intraarticular injection of saline or a diluted gadolinium-saline mixture. This practice has been shown to have marked potential in evaluating the reinjured postsurgical knee. Acute meniscal and cartilage tears can be clearly seen and measured. Plica can be easily seen. Synovial hypertrophy and debris can be visualized.[66,67] Intravenous injection of contrast is rarely used in the traumatized patient. For follow-up of suspected infection (osteolyemitis, cellulitis, abscess, or inflammatory arthridites), intravenous gadolinium can be quite helpful. In the ever-changing medical environment, however, indications for its use in the musculoskeletal system are few.[66,67]

Magnetic resonance imaging is not without pitfalls. There are many anatomic variants that simulate pathology; thus, there is a significant false positive



Figures 12a and 12b. T1 sagittal images (a) can identify effusions (E) and popliteal cysts (PC). Marrow signal may vary as seen in the posterior condylar region. T2 images (b) show pathology not seen on T1 images. The PC contains debris (straight arrows). The posterior horn of the meniscus is deformed and torn (curved arrow). There is also a large osteochondral lesion of the femoral condyle, the size of which is underestimated on T1 images. (T = tibia; F = femur; P = patella)

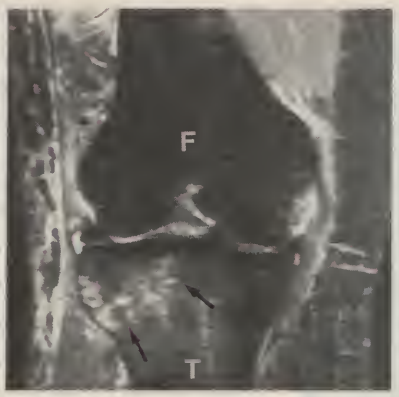


Figure 13. Short time inversion recovery (STIR) images suppress fat, especially of bone marrow, making marrow aberrations more pronounced. STIR images in adults, in whom marrow is predominantly fat, are suppressed and thus appear dark gray or black as shown. The bright signal in the lateral tibial plateau is due to a nondisplaced tibial plateau fracture (black arrows) with adjacent bone edema. The superficial medial collateral ligament is torn (white arrow). There is also marked soft tissue edema. The lateral meniscus is displaced laterally, extruded, from its normal position.



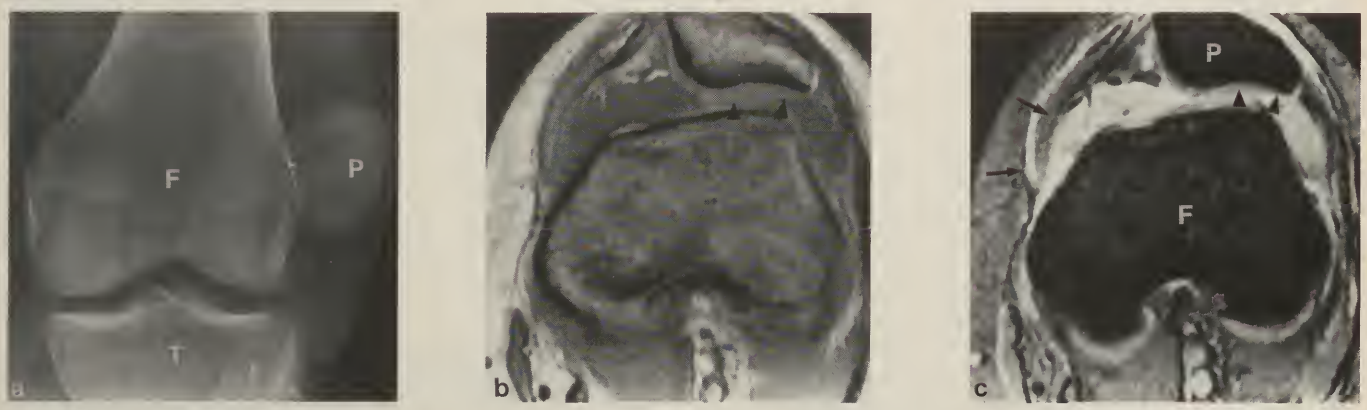
Figure 14. MRI of a hurdler who hit the back of her knee and calf against a hurdle shows a well-organized hematoma (H) in the posteromedial upper leg. The high signal fluid surrounds the medial gastrocnemius muscle, which is consistent with fasciitis; such findings often occur in compartment syndromes. The muscle is compressed and edematous.

rate (up to 20%) in detecting meniscal tears and anterior cruciate ligament (ACL) disruption. Patient positioning and choice of imaging parameters are important to depict more subtle findings. In addition, many orthopedists would like to see improvements in technical acquisition and greater experience with interpretation.[57,68]

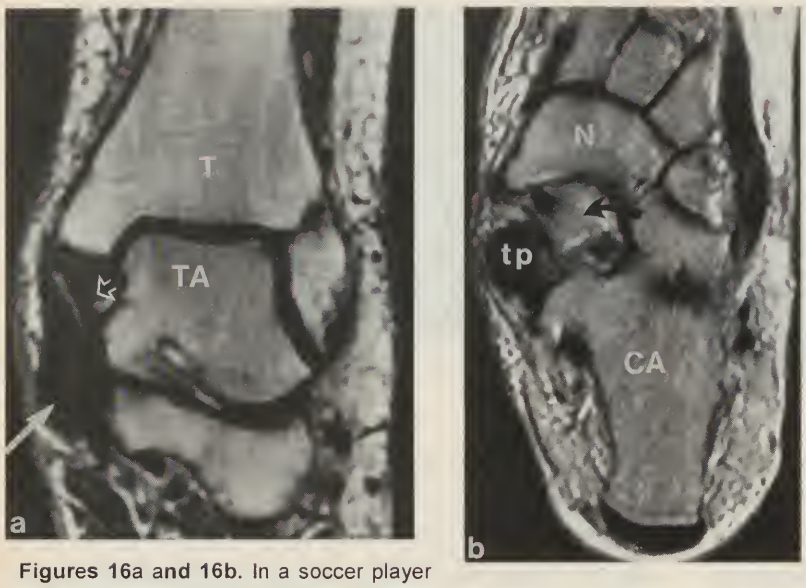
The ankle and foot. The routine trauma series of the ankle includes AP, lateral, and mortise radiographs. An additional oblique view of the foot may be obtained. In chronic cases, weight-bearing films may show pathologic high or low arch deformity or loss of joint space. They readily show the major areas of interest: bony articulations, soft tissue, and fat planes of the foot and ankle. Overlapping structures and normal variants combined with variable patient positioning add to the difficulty of interpreting plain radiographs. Any suspicious findings can be further evaluated by fluoroscopy. If findings are still inconclusive, advanced imaging should be used.[26,69]

Bone scan plays a role in detecting a fracture not seen on radiographs. The scan will show increased radiotracer uptake at sites of a stress or through-and-through fracture. A negative bone scan implies that any symptoms are due to a cause other than stress fracture. Bone scans in patients with foot pain can be a valuable screening tool for miscellaneous conditions (e.g., tarsal coalition, AVN, subtle infections, and osteoid osteoma).[37,43]

Computed tomography of the foot has been a popular diagnostic tool for evaluating the coalition. Thin slices with rapid acquisitions and reconstructions allow superior detection of skeletal anatomy. Three-dimensional reformatting allows reconstruction of images for additional planes of interest, which are useful in evaluating joints (e.g., Lis franc, subtalar, and tarsal coalition).[29,69] Magnetic resonance imaging has rapidly gained attention for assessing ankle and foot injuries due to its superior soft tissue contrast. In addition, MRI has excellent spatial resolution (**Figures 16a and 16b**), which allows accurate depiction of complex soft tissue anatomy (muscles, ligaments, tendons, neurovascular bundle).



Figures 15a, 15b, and 15c. Anteroposterior radiograph (a) of patella dislocated bilaterally during a basketball game. MRI (b) shows the partially reduced patella perched on the lateral femoral condyle. STIR axial images c show torn medial retinaculum, medial collateral ligament, and vastus medialis tendon (arrows). The chondral defects (arrowheads) are much more apparent than in (b).



Figures 16a and 16b. In a soccer player who experienced sharp foot pain after kicking, a T2 coronal image (a) shows a thickened, bulbous tibialis posterior tendon below the medial malleolus (arrow). The deeper deltoid ligament is intact but thickened (open arrow), which is consistent with a sprain. An axial T2 image (b) shows detachment of the distal tibialis tendon. There is a visible gap between the retracted tendon and the navicular (N) bone. The spring (calcaneonavicular ligament) is well seen (curved arrow). The deltoid ligament is severely thickened and edematous (a sprain).

Marrow and cortical bone definition allows depiction of fractures, trauma, cysts, infections, and periosteal changes. In addition, articular cartilage is well seen, which allows assessment of degeneration and diagnosis and staging of transchondral fractures and loose bodies within a joint.[70,71] Tendon abnormalities (partial and complete tears, interstitial tears, acute vs. chronic tendinitis, and tenosynovitis) are well demonstrated. Magnetic resonance imaging facilitates classification of ankle fractures by the Lauge-Hansen system because specific ligament ruptures are well seen.[70-76] Other abnormalities (e.g., tarsal tunnel syndrome, plantar fasciitis, infection, neuropathic changes, and arthritis with the variety of soft tissue and bony changes) also are well depicted.[70,71,73]

Pediatric skeletal trauma

Children are not little adults. There are anatomic, biomechanical, and physiologic differences. Children have radiolucent epiphyseal cartilage. The porous structure of pediatric bones accounts for the type of fractures encountered: buckle, bowing, greenstick, and complete fractures. The periosteum of a child is stronger and less susceptible to tearing than that of an adult. Children are still growing, which accounts for the greater degree of growth remodeling and almost total lack of nonunion fractures.[75]

Plain radiographs of the injured body part show most fractures. Subtle differences in the width of the growth plate should raise suspicion of a fracture.

Fluoroscopy is useful in pediatric patients to detect minimal or very subtle abnormalities, particularly frac-

Table 3. Indications for various imaging modalities

Diagnosis	Radiographs	Fluoroscopy	Arthrography	CT	Bone Scan	MRI
Fracture	+	+	-	+	+	+
Dislocation	+	+	-	+	+	+
Foreign body	±	+	-	+	±	+
Loose body	+	+	+	+	-	±
ST infection	+	-	-	±	+	+
Osteomyelitis	+	-	-	+	+	+
Osteomyelitis, early	-	-	-	±	±	+
Osteomyelitis, late	+	-	-	+	+	+
Tendinitis	-	-	-	-	-	+
Tendon tear	-	-	±	±	-	+
Tenosynovitis	-	-	-	-	-	+
Ligament tear	-	±	+	+	-	+
Meniscal tear	-	-	+	-	-	+
Compartment syndrome	-	-	-	-	-	+
Muscle injury	-	-	-	-	-	+
Joint instability stress views	+	+	+	+	-	+
Soft tissue mass	-	-	-	-	±	+
Bone tumor	±	±	-	-	+	+
Popliteal cyst	-	-	+	±	-	+
Marrow edema	-	-	-	-	-	+
Overuse syndrome	-	-	-	-	+	+

tures extending into the growth plate in rapidly growing or weight-bearing bone. A radiograph of the opposite side (body part) should be obtained in questionable cases to discern any lack of symmetry, which is abnormal.[76]

The major indications for pediatric bone scan include osteomyelitis, Legg Calve Perthes disease, long-standing skeletal or joint pain, and suspected child abuse. In athletes, bone scan can detect stress fractures, spondylosis, overuse syndrome, chondromalacia patella, and tumors. Although the bone scan will be abnormal, the lack of specificity means additional radiographic evaluation will be needed targeted at the abnormalities identified on the bone scan.[37]

With helical CT scanning, most pediatric patients can lie still long enough for a complete scan. As in the adult, CT is useful in evaluating complex fractures for displacement and angulation (e.g., supracondylar fracture). It is also helpful for follow-up of fractures and dislocations. Three-dimensional CT has been a useful tool for slipped capital femoral epiphysis, joint dysphasia, developmental or congenital abnormalities, localizing intraarticular loose bodies, as well as follow-up treatment for any of the above.[26,29,75,76]

Like computed tomography, MRI is useful for slipped capital femoral epiphysis, Legg Perthes disease, congenital dysplasia, and fracture. In the knee, patellar tracking disorders, Blount disease, and Osgood Schlatter disease can be easily demonstrated. However, MRI is not indicated for diagnosing Osgood Schlatter disease; it is a clinical diagnosis, but it may be an accidental finding on the examination. In these abnormalities, MRI yields additional information because the involved and surrounding tissues can be evaluated.

In addition to the adult applications of MRI, imaging of the foot can identify foreign bodies, anatomic and congenital variations, subtle infectious processes, septic joints, and changes of juvenile arthritides and tumors.[76-80] It is also an important tool to evaluate the stability of osteochondritis dessicans. A careful examination of the patient combined with a properly performed imaging modality should yield valuable diagnostic information. The information in **Table 3** should enable the clinician to select a diagnostic radiology procedure that will help in making a timely and accurate diagnosis, avoid overlap of modalities, and limit expense to the patient.

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Care of collegiate athletes

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ABSTRACT: *Caring for collegiate athletes requires the coordinated efforts of a sports medicine team that includes primary care physicians, specialists, trainers, and other allied health personnel. In addition to screening requirements, team physicians must be knowledgeable of a wide array of conditions, including cardiovascular, infectious, and eating disorders, as well as traumatic injuries. In today's managed care environment, obtaining appropriate care for an injured college athlete may be challenging.*

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The medical care of collegiate athletes requires the collaborative effort of several professionals. The sports medicine team includes physicians,

athletic trainers, administrators, coaches, and other allied health personnel. Team physicians historically have included family physicians, orthopedists, internists, general surgeons, and others.[1] Because caring for athletes involves much more than treating musculoskeletal injuries, it has been recommended that the team physician should be a primary care physician with a specialty in sports medicine and that orthopedists and other physicians act as consultants.[2] Although that situation may be ideal, it depends on the availability, interests, and training of physicians in the community. What is important is that the health care needs of the athlete are provided. These needs include education; prevention and treatment of injuries and other conditions; and the safe, expedient return to sports following an injury.

The athletic trainer is central to the coordination of care. The trainer has been called the athlete's therapist, counselor, and confidant; the coach's advisor and friend; and the team physician's "eyes and ears."[3] The physician's main responsibility is to be available to the trainer, coaches, and athletes, which includes attending sporting events and participating in educational clinics and classes. The physician also should be willing to have regular clinic days at the training room, where there are no distractions or interruptions from a busy office schedule. To do so allows true rapport to develop among the physician, the trainer, and the athletes.

Preparticipation evaluation

The preparticipation evaluation is not intended to exclude, but to help the athlete participate safely.[4] Young adults, however, may be unable to provide all the details required. Thus, it is important to have an established plan to obtain medical information well before the preparticipation examination, which includes sending all necessary forms to the athletes in advance. A cooperative effort with the coaches in which they are updated regularly about their athletes' compliance with deadlines allows the coaches to help get the information returned.

The National Collegiate Athletic Association (NCAA) suggests that a preparticipation evaluation should include a comprehensive health history, immunization history as defined by the Centers for Disease Control and Prevention, and a relevant physical examination with an orthopedic evaluation performed before the athlete's initial participation in intercollegiate athletics. Subsequent physical examinations are not believed to be necessary, but the NCAA does recommend annual medical history updates and an exit evaluation at the conclusion of the athlete's participation.[5]

Athletes can be placed in several categories: veterans with continued participation (VAP), veterans with interrupted participation (VIP), and rookies. VAPs complete a health history questionnaire, consent forms, and an assumption-of-risk statement and provide updated insurance information. Rookies furnish all the information required of VAPs and the results of a completed physical examination (PE) with immunization records. VIPs, due to their discontinuance of play over a four-year period, fall into the rookie category.

Rookies and VIPs may receive a physical examination by the team medical staff or their own practitioner. A practitioner who performs the PE should use the institution's standard form to decrease the incidence of incomplete or inaccurate records. The certified athletic trainer then screens the information; reviews the health history; checks blood pressure, pulse, flexibility, and vertical jump; and performs a musculoskeletal examination. Physical examinations also can be performed on site by a nurse practitioner and/or physician assistant under the supervision of a primary care physician and orthopedist. Groups of athletes can be efficiently evaluated in this manner four to five times a year depending on the number of athletes and the sport. Regardless of where the PE is performed, if there is a preexisting injury or condition, the athlete must furnish documentation and physician clearance to play.

All training room records should be accurately filed and kept up to date. These records are likely to be protected by confidentiality laws.[6] It is advisable to obtain in advance from each athlete a signed written acknowledgment that medical information may be shared with the institution, coach, and trainers. Medical information should not be discussed with an athlete's parents or spouse without the athlete's permission.

Recognizing and treating nontraumatic conditions

Cardiac abnormalities. Although rare, nontraumatic deaths do occur in young athletes. The authors of a 10-year study of high school and college athletes reported that the most common cause of death was cardiovascular and that the incidence was highest in college men.[7] Some of these fatalities were potentially preventable; in some cases the cardiac abnormalities would have been expected to have easily detected murmurs that could have led to proper diagnosis and possible athletic restriction.

Exertional hyperthermia. This disorder has been reported to account for 43% of noncardiac fatalities among young athletes, indicating the importance of prevention and treatment.[5]

Infectious diseases. Those involved with the health care of athletes should be familiar with infectious diseases that occur in sports.[8] Viruses, bacteria, and parasites may cause

infections such as scabies, pediculosis, and fungal skin infections. Transmission can occur through sustained direct contact (e.g., herpes simplex, impetigo, and tinea corporis in wrestlers; streptococcal infections in rugby players). Football and soccer players who share water sources may be at risk for infection with enteroviruses. Airborne and droplet spread has been related to measles outbreaks from exposure at sporting events. Thus, trainers and physicians must screen athletes for skin lesions, make sure immunizations are current, and try to prevent exposure to oropharyngeal secretions.

No validated case of human immunodeficiency virus (HIV) and only one documented case of hepatitis B virus transmission (sumo wrestlers) has been reported in association with athletic competition.[5,9,10] Nevertheless, universal precautions should be followed, including occlusive dressings for open abrasions or wounds; use of gloves, bleach, and antiseptics; proper disposal of soiled equipment; and immediate removal of the athlete from an event until bleeding is controlled and the wound covered. It is also important to educate athletes about the real risks of contracting these diseases (i.e., through risky behaviors such as sexual practices and illicit drug use, not through sports).



Figure 1. Anterior drawer test.



Figure 2. Lachman test.

Eating disorders. In a survey involving NCAA athletic institutions, 40% reported at least one case of bulimia or anorexia nervosa.[11] The majority of occurrences (93%) involved women's sports, particularly gymnastics, cross country, swimming, and track. Men's sports, however, were not excluded; the highest percentage of eating disorders among men occurred among wrestlers.

It is important to be alert for drastic weight loss or fluctuations, mood changes, relentlessness or excessive exercise, binge eating followed by vomiting, and/or diuretic or laxative abuse.[5] If an eating disorder is suspected, the athlete should be promptly referred to an appropriate professional for evaluation and treatment.

Conditions related to eating disorders are amenorrhea and osteoporosis.[12] Secondary amenorrhea (absence of menstrual periods for more than three consecutive months) is common in individuals with anorexia nervosa. The etiology, however, appears to be multifactorial, as menstrual irregularities may occur in competitive athletes who do not have an eating disorder.[13] Amenorrhea has been associated with sudden increases in volume or intensity of training, altered body fat, prior menstrual history, and psychological and genetic factors. In addition, decreased bone mineral content occurs in athletes with secondary hypoestrogenic amenorrhea.[14] The spinal vertebrae are the site primarily involved; demineralization can be irreversible, increasing the risk of fractures. Although the same decrease in long bone mass has not been clearly demonstrated, stress fractures of the lower extremities have been reported in as many as 49% of runners who have fewer than six menses per year and a fracture may be the first indication of an underlying amenorrhea and osteoporosis.[15] Like amenorrhea, osteoporosis is influenced by several factors and etiology is not conclusive.[13] The prescreening and evaluation of women athletes should there-



Figure 3. Pivot shift test.

fore include dietary and menstrual histories and tests of thyroid, pituitary, and ovarian function when indicated.

Traumatic injuries

Among college athletes, the most common areas injured are the knee and ankle; sprains and strains are the most frequent.[16,17] Most injuries are sports specific with a higher incidence in contact sports. The exception is gymnastics.[17,18] The NCAA Injury Surveillance System, 1995-96, listed women's gymnastics third in percentage of all injuries occurring in practice and games and first in injuries requiring surgery.

Anterior cruciate ligament injuries. The type of knee injury in athletes tends to be gender specific.[16,19,20] Among basketball players, the rate of noncontact anterior cruciate ligament (ACL) injuries reported among women has been eight to ten times that of men. The increase has been related to decreased ligament and/or femoral intercondylar notch size, limb alignment, generalized ligamentous laxity, decreased muscle mass, and level of skill and experience.

History and physical examinations are very important in the diagnosis of acute ACL injuries.[21,22] There may have been a direct blow to the knee, but more commonly the knee gives way with a deceleration, cutting, or jumping activity. The athlete often reports hearing or feeling a pop followed by swelling within a few hours. Physical examination reveals an effusion of varying degrees (bloody if aspirated) and joint line or collateral ligament tenderness depending on the amount of trauma and associated injuries. Motion is usually restricted by swelling and pain. As shown in **Figures 1 and 2**, laxity is detected by the anterior drawer test (i.e., anterior tibial translation when anterior stress is applied to the tibia with the knee at 90 degrees of flexion) and the Lachman test (i.e., anterior stress applied in 20 to 30 degrees of flexion). The amount of translation and the firmness of the displacement (endpoint) is compared to the opposite knee. An estimated right-left difference of 3 mm or greater with a soft endpoint is considered abnormal. Commercial instrumentation devices (arthrometers) are also available to assist in detecting the side-to-side differences. Although difficult to perform in the acute setting, the pivot shift test or variation can be performed. A deficient ACL allows anterior subluxation and internal rotation of the tibia on the femur in near extension. The pivot shift is produced by the reduction of the tibia at 20 to 40 degrees of flexion as the iliotibial tract tightens and moves from anterior to posterior of the knee axis. Depending on the variation of the test, the tibia is held with valgus stress applied while the knee is flexed or extended (**Figure 3**). Plain radiographs consisting of at least an anteroposterior (AP), lateral, and patellofemoral view should be obtained. They are often negative, but may demonstrate osteochondral or avulsion fractures at the site of cruciate and collateral ligament injury. A small bony avulsion or Segond fracture seen at the lateral edge of the tibia on the AP view is highly



Figure 4. Malalignment of lower extremity: internal rotation of femurs with in-looking patellae, valgus knees, hypoplastic vastus medialis obliquus muscles, and pronated feet.

indicative of an ACL tear.[23] Although not required for diagnosis, a magnetic resonance image (MRI) may give additional information regarding the meniscii, posterior cruciate, and collateral ligaments that can influence management of the ACL injury.[21,22]

Surgical reconstruction is indicated when there are significant side-to-side differences in laxity and/or associated injuries. An associated medial collateral ligament injury can be treated without surgery,[24] and injuries to the lateral collateral ligament complex and the meniscii can be addressed at the time of ACL reconstruction.[21,22]

Patellofemoral joint injuries. Also more common among women athletes are injuries involving the patellofemoral joint.[16,19] Manifestations can range from patellofemoral pain syndrome of multiple etiologies to recurrent patella dislocation. Contributory factors include a wider pelvis, increased femoral neck anteversion, valgus alignment of the lower extremity, hypoplasia of the vastus medialis obliquus (VMO) muscle, and increased foot pronation (**Figure 4**). The physical examination should assess these areas in the standing, sitting, and supine positions.[25] A complete knee examination with particular attention to patella medial and lateral excursion (glide), quadriceps angle, patella tilt, and height should be included (**Figures 5 and 6**). Plain radiographs with patella tangiential views may show patella tilt with or without subluxation, bony avulsions, arthrosis, and trochlea or patella dysplasias. Additional useful information may be obtained by dynamic computerized tomography or MRI.[26] Most patellofemoral pain syndromes improve with a rehabilitation regimen of medication, hamstring stretching, and quadriceps muscle strengthening emphasizing the VMO. When surgery is required, both the soft tissue and bony abnormalities must be addressed.

Stress reactions and stress fractures. Common in both men and women, these injuries are due to repetitive cyclic stress from compressive, tensile, or shearing forces that lead to bone resorption occurring faster than bone formation.[27] The spectrum of bone abnormality ranges from the stress reaction that has accelerated remodeling of bone to the stress fracture that has frank disruption of the cortex. Contributing factors include sudden increase or change in training, poor conditioning, menstrual irregularities, and poor nutrition.[15,19,27]



Figure 5. Quadriceps angle (Q angle): center of goniometer over patella with proximal arm aligned with anterior superior iliac spine and distal arm aligned with patella tendon.

Although many studies have reported a higher occurrence of stress fractures in women, a recent 12-month prospective study showed no difference between men and women track athletes; overall incidence was 21%. The tibia was the most frequent site involved (46%), followed by the navicular (15%), and the fibula (12%).[28] The incidence and location can also vary depending on the sport: fifth metatarsal, tarsal navicular, and humerus fractures are more common among football players, basketball players, and throwing athletes, respectively.[27]

Initial symptoms include gradual onset of pain after activities that improves with rest. Later, the pain occurs sooner



Figure 6. Assessing medial and lateral patella glide by determining the amount of excursion when stress is applied.

in the activity and increases in severity. Point tenderness, swelling, and percussion tenderness may be present. Plain radiographs may show periosteal new bone formation, endosteal thickening, or a radiolucent line after two to four weeks, but only half will ever become positive. Technetium pyrophosphate bone scans can be positive as early as two to seven days after presentation; early in stress reactions they show diffuse uptake, and at more advanced stages they show sharply marginated fusiform uptake. Up to 50% of positive scans show uptake in other asymptomatic regions, indicating subclinical sites of bone stress. A computed tomogram can help localize fractures such as the tarsal navicular but is not routinely required. MRI has been shown to be useful in assessing tibial stress reactions in runners.[29] According to the authors, MRI more accurately correlated with the athletes' clinical symptoms and bone involvement than bone scan, allowing for accurate treatment and rehabilitation recommendations. It remains to be seen if routine use of MRI is justified.

Most stress reactions or fractures can be treated by limiting the precipitating activity and substituting nonimpact aerobic exercise. Immobilization and limited weight bearing are usually not required. Exceptions include atypical anterior midshaft tibia, proximal fifth metatarsal, and medial malleolus fractures because fractures in these areas can result in nonunion or displacement that requires surgery.[27] Femoral neck stress reactions or fractures are also treated aggressively because of the high risk of complications with displacement. Treatment varies from bed rest followed by strict non-weight-bearing activity to surgery.[30] Among women athletes, associated menstrual irregularities and diet may also need to be addressed.

Obtaining care for injuries

To control costs associated with athletic injuries, many colleges and universities have begun to use secondary insurance policies that pay only claims not payable by the student's own insurance plan.[31] Demographics of student athletes from Salisbury State University and the University of Maryland Eastern Shore show that of 659 athletes, 202 were from out of state and the majority of in-state athletes were from outside the local area. With the growth of managed health care (e.g., health maintenance organizations, preferred provider organizations, preferred provider networks), obtaining expedient care can become a difficult task. This is complicated further by the fact that the athletic training staff has the primary responsibility of obtaining permission for care and for filing claims, usually without formal training in this area.[31]

One protocol for treating nonemergency injuries is simple in theory but can be difficult in practice. During the prescreening process, the athlete provides information about the type of insurance, name of the primary care physician (PCP), and all appropriate telephone numbers. If the athlete is injured, the PCP is contacted and an out-of-area referral is requested. If the referral is granted, diagnosis and treatment parameters are established. The PCP is informed of the findings so direction for continued care can be provided. If the PCP is contractually bound to stay within the network, however, treatment may be delayed, costing the athlete time away from school and travel expenses. In addition, the athlete may miss a significant part of the season by the time treatment is rendered. It is therefore imperative that physicians who care for athletes away from home and primary care physicians in the resident communities work cooperatively to give the athlete the most favorable outcome.

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The relationship of the certified athletic trainer and the team physician in sports medicine

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The relationship of the certified athletic trainer (ATC) and the team physician in sports medicine is a unique one that has evolved during the past 50 to 60 years. Athletic trainers' roots began in the locker rooms, often as a locker room attendant or sometimes as a coach who had a particular knack for taping or massage. Team physicians historically were those who dabbled in the field of sports medicine when their children were participating on athletic teams. The two professions became closely intertwined as the athletic trainer sought out more and

Table 1. Day-to-day job activities of the certified athletic trainer

Injury prevention	Management	Rehabilitation/reconditioning
Education	Injury assessment	Therapeutic exercise
Counseling	Emergency transportation	Therapeutic modalities
Coordination/communication	First aid	Functional activities
Conditioning	Reporting/recordkeeping	Activity integration to reduce reinjury
Equipment fitting and selection	Budgeting	
Emergency planning	Inventory control	
Taping/padding	Purchasing	

more medical knowledge from the team physician, and the team physician in turn recognized the expertise of the athletic trainer regarding the nuances of sports and athletics. During the past 25 years, the relationship has become a highly sophisticated one that many other health care professionals have tried to emulate in recent years.

Certified athletic trainer's responsibilities

The National Athletic Trainers Association (NATA) is the only professional credentialing association for ATCs in the United States at this time. NATA and its board of certification have established strict professional educational standards and credentialing guidelines that allow ATCs to be recognized as allied health care professionals. Certified athletic trainers are now being called on to provide injury prevention and injury management services for the public as a whole. The ATC has three main areas of responsibility. First, the ATC is a specialist in injury prevention. Second, the ATC is the primary manager of athletic injuries. Third, the ATC is generally responsible for or supervises the rehabilitation/reconditioning of athletic injuries (**Table 1**). The ATC also must be an excellent communicator to handle athletic injuries in various settings (**Table 2**).

Many ATCs who work in a sports medicine clinic also are involved in community outreach programs that provide athletic training and sports medicine services to local high school athletes. Facilitating high school athletes' access to sports medicine services is becoming increasingly important in today's environment of managed care and capitated health plans. In consultation with the attending physician, the ATC helps the injured student athlete return to sports as soon as it is medically safe. The ATC's help also will reduce the risk of athletic reinjury in high school athletes.

Team physician's responsibilities

Team physicians are responsible for the medical care and supervision of individual athletes on the team as well as the team as a whole. They are ultimately responsible for managing athletic injuries. They must be familiar with the guidelines for preparticipation and return to participation examinations and make the final recommendation regarding participation in sports. They also are responsible for developing and implementing an organizational plan for the sports medicine team to handle sports medicine emergencies.

In deciding whether athletes can participate, the team physician uses basic principals of returning to play. During the precompetition phase, the emphasis should be on injury prevention. During the competition phase, the team physician is responsible for the triage of acutely injured athletes, who should not be allowed to return to play until a diagnosis has been made, both tentatively and definitively. The decision should be based on the following criteria: the injury will not be worsened by return to activity; and the injury or condition will not place the athlete at increased risk of reinjury. During the postcompetition phase, the emphasis is on managing injuries and appropriate rehabilitation and care of the injured athlete.

Sharing responsibility: past, present, and future

In the traditional setting, there was a special relationship between both professions that allowed the team physician and the ATC to work independently and cooperatively in the athletes' best interests. The ATC, who saw the athlete two or three times a day, became the eyes, ears, and voice of the team physician who was not in the training room every day. The ATC could provide the team physician with all the

Table 2. Communication responsibilities of the certified athletic trainer

High school	Collegiate/university	Professional	Sports medicine clinic
Coaches	Coaches	Coach	Clinic owners
Athletic directors	Athletic administrators	Assistant coaches	Hospital/clinic administrator
Administrators	Administrators	General manager	Referring physicians
Athletes	Athletes	Club administrators	Supervisors
Parents	Parents	Team owner(s)	Other allied health care professionals
Team physician	Athletes, professors	Athletes	Coaches
School nurses	Team physician	Athlete's family	Athletes
		Athlete's agents, legal counsel	Parents
		Team physician	

information needed to make the best care decision for an athlete. By using the ATC wisely, the team physician in turn could communicate effectively with the athletes, coaches, parents, and administrators.

Today, the relationship between clinical ATCs and team physicians as it relates to sports medicine clinics has begun to assume a different shape. Although ATCs and physicians who work in the same clinic can approximate the traditional roles of the past, many clinical ATCs now interact with an outside team physician. In such situtations, it is very important for both parties to meet regularly to develop a good line of communication to benefit the care of the athlete. Likewise, clinical ATCs today play a very important part in delivering athletic health care to athletes who are being seen by primary care physicians (PCP) in managed care and capitated health plans. The clinical ATC is often the only link for communicating with the PCP regarding an athlete's injury status. Likewise, the PCP must use the services of the traditional athletic trainer or the clinical ATC to communicate timely information back to the parent and the school's athletic program, coaches, and administrators.

As the number of managed care subscribers grows, it will become increasingly important for clinical ATCs and PCPs to develop a good understanding of what each can do to help the other. Team physicians essentially initiated sports medicine clinics in our society, and it is their understanding and support of the relationship with the ATC that has helped make sports medicine clinics so successful. All clinical ATCs and sports medicine physicians, particularly PCPs who see injured athletes, should view the traditional relationship between ATCs and team physicians as a model for delivering sound athletic health care. Fifty years ago, ATCs and team physicians learned to help and depend on each another. Today, with communication and respect, we will see that excellence in athletic health care will continue well into the future.

Suggested reading

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Trends in orthopedic sports medicine for the 21st century

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ABSTRACT: *Sports medicine research will undergo many advances during the 21st century. Computer technology will enable physicians to determine accurately whether a ligament, tendon, muscle, or joint is dysfunctional. It will then show, via 3-D graphics, various surgical and/or physical therapy treatment options. Cellular biology research in the field of bone morphogenic proteins, biologic scaffolding, and cartilage culturing may enable us to treat articular cartilage injuries by fabricating cartilage autografts derived from a patient's own cartilage cells. Cartilage and meniscal transplants will also be investigated to determine how they can be preserved, how they can be surgically implanted, and whether their long-term function is the same as that in the donor.*

Introduction

During the past several decades, sports medicine has undergone many advances that have had widespread impact on the care of many orthopedic conditions. Research in exercise physiology, biomechanics, and cellular biology has provided important information that has been successfully applied to the clinical setting. Technical advances, such as the arthroscope, have advanced not only the care of athletes, but also the care of nonathletic orthopedic patients.

The purpose of this paper is to discuss a few of the current and future research topics that will have impact in the next century. We will discuss research in computer modeling and how it aids in the biomechanical analysis and treatment of pathologic states in the hip, shoulder, and knee. We will also discuss research in the area of growth factors and how they can be used to promote ligament and cartilage healing. Finally, we will

focus on meniscal transplant research and the highly publicized but controversial cartilage regeneration techniques.

Computer technology

Computer modeling has come to the forefront of orthopedic research in part due to the decreasing costs and increasing hardware capabilities in the field of computers. Musculoskeletal 3-D imaging of the hip, shoulder, and knee are current areas of intense research. In pediatric orthopedics, for example, femoral and pelvic osteotomies can be simulated on a computer using 2-D graphics and periacetabular osteotomies can be modeled using 3-D graphics. The basic technique involves digitizing plain anteroposterior radiographs on the computer and then, using basic mechanical engineering principles, calculating joint contact pressures and muscle forces.[1] The computer can then simulate, and hopefully optimize, an operation and its results.

The techniques developed in pediatric orthopedics have been successfully applied to sports medicine for such surgeries as knee osteotomies and anterior cruciate ligament reconstructions. The visualization technology for the knee and hip joint has also recently been applied to motion studies to investigate the segmental motions (kinematics) of such activities as gait, the baseball pitch, and knee rehabilitation exercises. At our institution, current research involves visualizing a patient's preoperative condition as represented by 3-D musculoskeletal models.[2] We use these models to explore the complex forces on the shoulder and elbow in baseball players.

Although the detailed steps used in developing these models and interfaces are beyond the scope of this paper, the basic concepts will be presented. First, a geometric model was created by obtaining magnetic resonance image (MRI) T1-weighted transverse scans through cadaveric specimens (using 3 mm slices). The cadavers were then frozen and high resolution computed tomography (CT) scans (using 1.5 mm slices) were obtained. Finally, the frozen cadavers were sectioned into 5 mm slices and each section was imaged using two digital video cameras. All the above images were stored on a computer and 3-D graphical models were created using specially designed software.[2]

After the 3-D graphic model was obtained, 3-D motion data were determined by placing sets of reflective markers on the limb segments of a baseball pitcher and then tracking the motion of the markers using a five-camera MotionAnalysis™ system.[2] Ground reaction forces were simultaneously obtained using force plates.

Computer software was then used to generate 3-D musculoskeletal computer motion images by coalescing the 3-D motion study with the previously obtained geometric model data (i.e., the MRI and CT scans and the frozen section images). The results are a 3-D skeletal model that can be used to analyze gait from any vantage point. This can be done within 15 minutes of an actual gait analysis trial.[2] Upper extremity rotations at different times during a baseball pitch have also been graphically represented using a 3-D model (see the cover images).

The above mentioned models, for the most part, deal with normal subjects. Short-term research will focus on being able to predict muscle and joint forces accurately in normal as well as abnormal subjects. We hope computer research will enable us to analyze a patient's abnormal joint motions via computer 3-D graphics to determine which bone, ligament, tendon, and/or muscle is dysfunctional. The computer will then simulate various rehabilitation and/or surgical treatments that will best resolve the problem. This will obviously aid the physician in solving complicated motion disturbances in such activities as the baseball pitch and gait.

Cellular biology research

Numerous advances taking place in cell biology research have the potential to revolutionize the treatment of cartilage and ligament injuries and degenerative arthritis. Researchers are currently studying the normal healing processes of bone, ligaments, and cartilage to determine how these processes can be harnessed to prevent or treat a disease state. This goal has stimulated the rapid growth of a field of biotechnology and biomaterials called tissue engineering.

Tissue engineering of bone and cartilage requires knowledge of the normal interactions and regulatory mechanisms between cells and the extracellular matrix. Bone morphogenic proteins (BMPs) are a subset of a superfamily of growth and differentiation factors known as transforming growth factor-ß (TGF-ß).[3] These BMP regulatory signals are current areas of intense investigation. At last count there were nearly a dozen BMPs[4] (some play roles in nonskeletal tissues). Studies of BMPs have led to other members of the TGF-ß superfamily, such as cartilage-derived morphogenic protein-1 (CDMP-1) and -2 (CDMP-2).[5] The BMPs initiate de novo cartilage and bone differentiation and CDMPs are believed to be critical for the formation of cartilage.[6] Thus, understanding how BMPs and CDMPs work is critical to developing bone or cartilage allografts in vitro.

Although BMPs, CDMPs, and other TGF-ßs are imperative to initiate and propagate bone and cartilage cells, it is equally important to provide inductive and conductive pathways for the bone and cartilage that is growing. Current

research is in progress to develop such biomaterials as hydroxyapatite, polyanhydrides, and other polyphosphoesters that will act as scaffolding or molds for growing cartilage, bone, or ligaments.[6]

An example of this type of work is found in a study by Reddi and coworkers[7] from our institution. Vascularized muscle flaps in a rat were transformed into well-perfused bones in the shapes of femoral heads and mandibles. This was done by placing rat thigh adductor muscle flaps into bivalved silicone rubber molds shaped as mandibles, femoral heads, and tubular bones. Experimental muscle flaps were injected with purified osteogenin (a BMP) and were also coated with demineralized bone matrix (DBM); control muscle flaps were not similarly treated with BMP and DBM. The result was that all muscle flaps treated with BMP and DBM had transformation of muscle to cancellous and compact lamellar bone.

Knowing how BMPs work and how they can be used on various man-made biologic scaffolds and molds is critical. Future research, for example, will make performing an anterior cruciate ligament (ACL) reconstruction obsolete. Instead, a copolymer scaffold will be bathed with a patient's own cultured fibroblasts and then, under the influence of BMPs, a new ACL will be grown. Or in the case of a large osteochondral defect in a young athlete's knee, a copolymer scaffold (generated using 3-D graphics and robotics) will be injected with BMPs and CDMPs as well as cultured osteoblasts and chondroblasts from the patient. The result will be a perfectly matched new articular surface that can be implanted into the patient, thus avoiding the current problem of allograft mismatches and disease transmission.

Bone morphogenic proteins and their role in preventing and treating osteoporosis via gene therapy is also being researched. By preventing osteoporosis, fractures and stress injuries could be prevented or curtailed in the older athlete. BMPs induce stromal mesenchymal stem cells to differentiate into skeletoblasts and then into chondroblasts and osteoblasts. This is done under the influence of other BMPs, TGF-ß, insulin-like growth factor, platelet-derived growth factor, and parathyroid hormone.[4] Current experimental work is underway that will allow for transfection of BMP genes into stromal cells, select for transfectants, and then enable stromal stem cells to repopulate bone marrow. Research could thus allow osteoporotic athletes to have genetic therapy to help stimulate their own bone marrow to produce more bone and therefore decrease their risk of osteoporosis.[4]

Cartilage transplants

Research is very active in the field of cartilage and ligament transplantation. The treatment of deep cartilage defects in the knee with autologous chondrocyte transplantation was recently reported.[8] The study included 23 patients with an average follow-up of 39 months. In these patients, biopsies were performed on healthy cartilage from the non-weight-bearing portion of the knee and then the cartilage cells were cultured. Patients then underwent arthrotomy and the cartilage defect was debrided, a periosteal flap was sutured over the defect, and then the cultured chondrocytes were injected beneath the periosteal flap.

Of 16 patients with femoral condylar transplants, 14 had either excellent (6 patients) or good (8 patients) clinical results; 2 patients had poor results. Macroscopic appearance of the graft was assessed arthroscopically by probing the graft and determining if the surface was flush with the native cartilage. Histologic biopsies of the transplants were also taken at the second arthroscopy. In general, in patients with excellent or good results, transplanted tissue was flush with surrounding cartilage and had a hyaline cartilage composition.

Although this study is an important first step in treating cartilage lesions, upcoming research in transplanting cultured chondrocytes will include more patients; longer follow-up; and more stringent pre- and postoperative subjective, objective, histologic, and radiographic rating scales. Researchers will focus on creating simple methods of culturing chondrocytes and then injecting them with biologic scaffolds into articular cartilage defects. With the aid of BMP research, genetic therapy hopefully will be developed so that cartilage cells surrounding an articular cartilage defect can be stimulated to "fill in" the defect.

Meniscal transplants

It is currently recognized that meniscectomy can lead to arthritis and joint destruction over time, especially in active individuals. Both basic science and clinical research are currently being performed in the area of meniscal transplants. Basic science research is focusing on graft preservation and disease transmission. Deep freezing, freeze drying (lyophilization), and controlled-rate freezing (cryopreservation) are methods of preserving allografts. Although the risk of disease transmission of HIV is less than 1 in 1 million from an undetected donor, secondary sterilization with up to a level of 4 megarads provides a "near guarantee" of inactivating existing HIV.[9] This level of radiation, however, adversely affects the properties of the meniscal transplant. Future studies are needed to determine if these preserved and/or irradiated menisci can be successfully transplanted so that they can

perform their prime objective—that is, to function in the recipient as they did in the donor.

Meniscal research will also focus on transplant techniques. Traditional methods of transplantation used medial or lateral arthrotomies and various suturing technologies to secure the meniscus. Various arthroscopic and arthroscopically assisted approaches are being investigated to avoid the operative and postoperative morbidities associated with arthrotomies. Shelton[10] used a minimally invasive, arthroscopically assisted procedure to implant meniscal allografts with bone anchors attached to the allograft, but did not discuss outcomes. Stone[11] described an arthroscopically assisted technique using sutures to tie down the meniscus, but also did not discuss outcomes. There have been no long-term studies that have determined that transplanted menisci function, either on an objective or subjective level, as they did inside the donor.

Meniscal sizing is another current area of clinical research. Garrett and Stevenson[9] have studied meniscal allograft size and have developed a technique, using standard anteroposterior radiographs, to match donors and recipients to within 5% by skeletal size.[9] Future research in sizing allografts may obviate the need to have large inventories of allografts on hand before performing a transplant.

The basic science and clinical research in meniscal transplantation is expected to have great benefit to the patient during the next century. It can be envisioned that a registry of meniscal sizes, obtained by computer digitalization of donor patellofemoral joints, will be preserved so that fit and function are exactly like that of the native meniscus. Using arthroscopically assisted techniques, and possibly BMP technology to aid in healing, the allograft will be implanted and function as it did in the donor.

Conclusion

There are multiple areas of research in the field of sports medicine. Computer skeletal graphics are currently being used to treat hip and knee degenerative arthritis and ongoing research is applying this technology to complex joint motions such as knee exercises and the baseball pitch. Research will hopefully enable us to graphically visualize pathologic states in bone, ligament, tendon, and muscles during these motions. Growth factors, such as bone morphogenic proteins, coupled with new biologic tissue scaffolding techniques and polymers, may enable us to replicate "spare parts" for the human body. Finally, cartilage and meniscal transplants, which are just in their infancy, will hopefully be found as safe and effective as knee arthroscopy is today.

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PERSPECTIVES

The professional sports team physician

I have often been asked by the lay public, as well as by the media, for whom does the physician for the professional sports team work? My answer in 1995 is the same as it would have been in 1966, when I was asked to treat my first professional athlete patient. I am a physician first and team physician second. Therefore, the welfare of the patient (athlete) comes before any other consideration. In professional team sports today, there are several obstacles to rendering appropriate medical treatment. Included in the constellation of decision makers are the player (patient), a spouse, a player representative (agent), a general manager, a team owner, a manager or head coach, a team trainer, the Players' Union, and the owners' Players Relations Committee. Oh yes, and the team physician. Because everything from George Brett's hemorrhoids to Glenn Davis' spinal accessory nerve neuropraxia is magnified tenfold by the media, it is extremely difficult for a player and the team physician to maintain the confidentiality so necessary in a trusting doctor-patient relationship. The perception on the part of the player, spouse, and agent is that the team physician is an employee of management and that any medical decision making is being influenced by management.

The media

No other occupation I know of, including high-profile entertainers, exposes the employee (player) to the written and visual media every day. Those who hover around the players' lockers, stand with them on the playing field before games, and travel on the same planes on road trips, are in a position to encourage second-guessing of all medical diagnoses and treatment. General managers and trainers are bombarded daily with unsolicited advice and offers of help from other health care providers, fans, and those with other well- or not so well-intentioned agendas. Most injuries to professional athletes are described in infinite detail by the media, who in turn are always anxious to get quotes from the medical profession to enhance their reporting and give it credibility. Many physicians are willing to be interviewed and quoted to get greater media exposure for themselves and their institutions. A writer for *The Physician and Sports Medicine* once asked to interview me about a Hall of Fame pitcher. When I asked if she had the player's permission and told her the player had not given me permission to discuss his injuries, she was aghast that I should decline to speak with her. When the science editor of a well-known national newspaper wanted my opinion about a high-profile athlete's injury, I asked if he had the player's permission to speak to me (I told him I had never seen the player for this particular injury, and I did not have permission to speak with him). The editor was insistent and even offered to fax me medical reports on the patient which he claimed to have received from one of the physicians involved in the patient's care. Again, I declined. One day while I was in the operating room treating a player, another physician who practices in a different field of medicine gave a television interview discussing my patient's injury and his opinion as to its management. Most who defend these breaches of medical ethics do so with self-serving comments.

Player contracts

Another unique aspect of treating professional team sport athletes (as opposed to those in individual sports such as tennis and golf), is the present-day contractual arrangement. The team physician is frequently not privy to incentives written into the contracts that might have an impact on players who either hide an injury or are performing poorly in their option year and decide to pack it in for the season. In the case of a baseball pitcher, for example, what an orthopedic surgeon might elicit in a history, demonstrate by physical examination, and see on imaging studies will not necessarily be interrelated at the time of surgery. In this writer's opinion, if all major league pitchers were to have an arthroscopic shoulder examination, 80% to 90% would demonstrate what would appear to be partial tears of the labrum and/or rotator cuff.

The preceding is significant in terms of the cost of medical care inasmuch as the public, on seeing and hearing about the studies and treatment that players undergo, demands the same of their physicians. The magnetic resonance image (MRI) in my mind is an over-used diagnostic tool in evaluating shoulder complaints in the professional throwing arm. Yet the first test the player asks for today is an MRI. A few pitchers have had 3 to 4 MRIs in the course of 8 weeks to "monitor" the progress of their injury. On the other hand, I have yet to see an MRI of a pitcher that did not show signs of either a partial rotator cuff tear or severe tendinitis, which many times are indistinguishable from one another. Two relatively recent studies in healthy asymptomatic men aged 20 to 30 have shown a lesion compatible with a rotator cuff tear in 30% of those studied. It is unfortunate that the motivation to do arthroscopic surgery on many shoulders in this population frequently lacks a scientific basis.

Physician-player relationship

Lack of allegiance to one team and one organization, along with the out-of-sight salary structure and increase in player movement from one organization to another, have created another ethical dilemma for team physicians, particularly in baseball. In professional football, the purchasing team does not sign a player to a contract until the team physician evaluates the athlete. In baseball, however, players are frequently signed without any input from the team physician. The original team physician knows the player is "damaged goods," but because of physician-patient confidentiality is unable to communicate concerns to the next organization.

Physician-patient confidentiality has been a hot issue in recent years among professional sports team physician groups for major league baseball, the National Football League, the National Basketball Association, and the National Hockey League. Each organization has an employee assistance program (EAP) with representatives who frequently have a dialogue with the player associations and unions. Issues such as drug and alcohol abuse and human immunodeficiency virus (HIV) have top priority. Each sport seems to have its own system. When a patient (player) confides in the team physician, all the latter can do is counsel the player to seek aid through the EAP.

In his keynote address to the American Orthopedic Society for Sports Medicine, Dr. Larry Johnson said, "Even a superstar sports medicine surgeon cannot make a mediocre athlete a superstar." Too often, the borderline player or the one in the lower echelons of the salary scale looks on an injury or ailment and the way the team physician managed it as an excuse for performing poorly. Compared to professional team sports athletes, professional individual sport athletes do not seem to acquiesce to surgical treatment as readily. Could the main difference be that the individual sport athlete earns money only when he or she participates in an event, while the professional team sports athlete is paid even while on a disabled or injured reserved list? In professional tennis, for example, players must earn computer points to enhance their seeding in each subsequent tournament. The tennis player or golfer cannot turn to the bullpen or go on a disabled list.

Lessons learned as a professional baseball team physician

Professional sports like football and particularly baseball are unique because of the daily and hourly "numbers game." In major league baseball, for example, each team has a 40-man roster that includes 25 players on the major league roster plus an additional 15 players who, because of their ability and future promise, are protected from trades, waivers, etc. The extra players participate in the various levels of the minor leagues. When a player is injured, a decision must be made almost instantaneously about whether and how long he will be out of the lineup. Because managers like to be able to play each game with a full complement of 25 players available, a replacement must be flown in from somewhere else in the country, usually on a moment's notice. There are also certain refinements of disabled lists. For example, there are 15-day and 60-day disabled lists. Once a player is declared for one of these lists, the team cannot change its mind no matter what happens medically (e.g., a misdiagnosis or a "sudden cure"). Therefore, there is a continuous, 24-hour a day surveillance of injured players that involves the team physician. Whereas an orthopedic surgeon in practice has the luxury of discussing a differential diagnosis and treatment options with patients, this flexibility in thought and action becomes extremely narrowed in dealing with professional team athletes.

I found that the best way to develop a trusting relationship with a professional team took three tracks. The first was to

address the team at spring training and attempt to stress to the players in the presence of the manager, coaches, and trainers that to effect proper treatment for an injury, an *honest* history was the key ingredient. If the history was flavored in any way by other issues or influences, it would have impact on the examination, any studies, an eventual diagnosis, and the proper treatment.

Second, a team physician must have the expertise needed to evaluate and treat players. If the physician is unsure and/or frequently suggests second opinions, players, trainers, and management interpret this as a sign of ineptitude. In more and more similar circumstances, the team physician has become little more than a triage mechanism.

Third, the team physician must not exploit the relationship with the team and players for personal needs. The physician must not be a fan, seek autographs, or ask to pose for photographs with players to adorn the office.

How does a team physician establish credibility with the players and management? I don't believe it can be done the way the field of sports medicine has moved during the past two years. Physicians groups and institutions have been willing to pay hundreds of thousands of dollars for the "privilege" of rendering care to the teams. Implicit in such "wheeling and dealing" is the expectation that the association with a team will have high visibility and no better way of marketing themselves.

Most importantly, the physician should not use the media for personal gain. I believe the examples set by my predecessors, George E. Bennett and Edmund McDonnell—who discouraged references to themselves by the media and asked team officials not to use their names in discussing injuries to players—should be the standard to which all professional team sport physicians should be held. By so doing, the players see that the physician can be trusted to maintain the confidentiality of the physician-player relationship. And, the team and agents see that the physician can be trusted not to exploit the relationship. It used to be that an added benefit was the respect of one's peers, who saw that the team physician was not asking for free publicity and marketing. Modern-day medical ethics, however, seem to have changed that.

The public does not realize that what they see and read in the media is usually five people removed from the source by the time the discussion of an injury becomes public. The physician first relates the findings to the patient (player) and then to the trainer. The trainer then passes the information on to the manager, coach, and general manager. The player (patient) then discusses the problems with teammates and the media. The general manager "informs" the public relations person in the organization, who is the official team spokesperson to the media.

Liability issues implicit to professional sports medicine

Many orthopedic surgeons have had to relinquish their positions because of an unwillingness of commercial insurance carriers to cover them because a multimillion dollar athlete could become so disabled as to be unable to continue his career. Some organizations are willing to help pay for the premiums, but many others believe it is the team physician's obligation. Every sport and organization has its own policy regarding remuneration for the team physician. Some physicians have contracts. Some are on salary. Some have a fee-for-service relationship without a contract. In my opinion, the last arrangement should produce the most trust in both the management-physician and player-physician relationships.

Conclusion

The role of professional sports in our society is inescapable. Justifiable or not, there is significant media overkill. Many of the technologic advances in the diagnosis and treatment of musculoskeletal disorders and many of the current aggressive rehabilitative protocols have been driven by the demands of the professional athlete. On the other hand, prudent physicians must educate their patients with respect to appropriate and cost-effective diagnostic work-ups and treatment algorithms and temper their desire to be treated in the same manner as someone for whom cost is no object.

Charles E. Silberstein, M.D., M.Sc.

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Medical coverage of high school sports

If only we could give every individual the right amount of nourishment and exercise, not too much and not too little, we would have found the safest way to health.

HIPPOCRATES

It started for me one crisp, clear Friday evening in October 1975 in a small town in Indiana. Sitting in the stands with my wife and in-laws watching her brother play football was not my idea of a hot date for a fourth year medical student, but the marching band, cheerleaders, and cheering students created a perfect setting, and I was soon into the game. My tranquility was suddenly shattered when one of our players went down during a crucial play in the fourth quarter. Although he walked off the field, from my viewpoint he looked very shaky. The coach obviously felt similarly because he stayed on the bench with his injured player as the game resumed.

Without the head coach's involvement in the game, our team's seemingly invincible offense started to fall to pieces. Sensing the coach's dilemma, my wife and mother-in-law loudly and enthusiastically volunteered my medical expertise. I reluctantly approached the bench and identified myself to the coach. "Great! A doctor! You'll be fine now son. Doc here will look after you," he exclaimed as he rushed back to the sideline.

The relieved coach was much more confident in my medical ability than either I or my new patient was. After the game, the coach and parents of the injured player were as appreciative and grateful as any patient I have ever treated. You too can enjoy that experience.

The high school team physician

Serving as a high school team physician can be very rewarding. Most high school athletes play for the love of their sport, untainted by many of the distractions seen at the professional and college levels. Most students still respect their coaches and physicians. They are enthusiastic and appreciate any medical support they receive. I have been covering high school sports as a team physician for more than 20 years, and although I have had the privilege of working with Division One college teams, I prefer caring for high school athletes. It restores my faith in kids and sports in general.

A recent study by the National Athletic Trainers Association showed that in the 1995 season, approximately 35% of high school varsity athletes were injured, a figure that has remained relatively constant during the past 10 years. The injury rates are approximately 22 per 100 girls, and 39 per 100 boys. The 30% reinjury rate indicates that many athletes return to their sport before they have properly recovered from their injury. There is a tremendous need for sports medicine assistance among high school athletes.

It has been estimated that at least 20,000 physicians in the United States serve as team physicians or medical consultants for teams on all levels of sports. Of those, 80% are primary care physicians. Because less than half the 16,000 high schools in the United States have athletic trainer services, many schools rely on physician volunteers and other health care professionals to fill the void. To encourage physician involvement in sports medicine, U.S. Representative Robert Erlich and Maryland Delegate Michael Busch sponsored Maryland Law 5-309.4, which provides immunity from liability for physicians who voluntarily, without compensation, provide services as physicians for sports programs.

An involved team physician on the sidelines takes tremendous pressure and responsibility off the coach, allowing him or her to coach instead of focusing on an injured athlete. It takes time for the team physician to earn the trust and respect of both the coach and the athletes. Physicians must remember that if we are to assume the role of team physician, we must accept athletics as important to the development of the student. This means accepting the dangers inherent in sports. Our presence on the sidelines and in the locker room cannot prevent injuries. We must be willing to accept both the risks of injury as well as the benefits of sports if we are to be effective. The benefits of sports to the athlete includes fitness, health, development of sportsmanship, character-building, and being able to achieve team and individual goals.

PERSPECTIVES

High school athletes, who range in age from 14 to 18, present a host of physiologic and psychological challenges. They begin their careers as adolescents and finish as young adults. Psychological problems can stem from the issues of puberty, success or failure, peer group pressure, parental involvement, lack of aggressiveness, fear of injury, or fear of failure. Physiologic problems deal with puberty, open growth plates, and general developmental problems of agility and coordination.

Table 1. Concussion severity scale

Grade	Symptoms
1 (mild)	No LOC; PTA < 30 min
2 (moderate)	LOC < 5 min or PTA > 30 min but < 24 hr
3 (severe)	LOC ≥ 5 min or PTA ≥ 24 hr

LOC: loss of consciousness
PTA: posttraumatic amnesia or confusion

Adapted from: Cantu RC. Guidelines for return to contact sports after a cerebral concussion. *Physician and Sports Medicine* 1986;14:76.

The goal of a high school sports program should be to provide an environment in which teenage athletes can develop their full physical and emotional potential. Injury prevention and recognition should be a priority. Athletes should receive good officiating, good equipment, good facilities, and good health supervision.

Team physicians should strive to make an accurate and prompt diagnosis of the injury and initiate effective treatment as early as possible. Early recognition and treatment of injury is the key to an effective sports medicine program. Athletes should be allowed an early return to activity, but with limitations and protection appropriate for their particular sport. The guiding principle should be *do no additional harm.* The injury always occurs to the best athlete in the biggest game of the season. I try to treat an injured athlete as I would want my own son or daughter to be treated.

Providing medical coverage

Before the game. When asked to cover a game, arrive at least half an hour early to meet with your coach as well as the opposing coach and officials. Introduce yourself and identify players who may have been sick or injured during the previous week, or who have special medical problems such as asthma, diabetes, or seizures. If an athlete keeps medications on the sidelines, make sure they are given to you and labeled in a clear plastic bag so they can be found promptly if needed. Before the event begins, locate an emergency telephone or carry a cellular telephone in your bag. Designate someone to make an emergency call if needed. Identify other health professionals who are present who can assist you if serious injuries occur.

Evaluating injuries. When called onto the field, move quickly to the athlete, but stay calm and take charge. The ability to act quickly and decisively helps dispel the fear that permeates both the athletes and spectators. Identify yourself to the officials and to the athlete, and then talk directly to the injured athlete. If the injured player is unconscious or has a major head injury, assume there is a major neck injury. Then attend to the ABCs of resuscitation (airway, breathing, and circulation). Do not remove the helmet of any unconscious athlete with a suspected serious head or neck injury.[1] A face mask can be removed easily to gain access to an airway, but helmet removal can increase the likelihood of damage to the cervical spine. The potential for head injuries exists in almost all sports, but football and other contact sports pose the most risk for athletes.

Recognition and appropriate treatment of closed head injuries may be one of the most significant contributions physicians can make. Although universal acceptance of a classification system for closed head injuries is lacking, Cantu and Voy[2] recently proposed a classification system that can be easily memorized (**Table 1**). They also suggested return-to-play criteria (**Table 2**).

Patients must be asymptomatic at rest as well as during exertion before they can return to physical activities. Patients may be asymptomatic at rest, but when they resume vigorous physical activities, headaches and dizziness can return. These symptoms are significant and should not be ignored. Second impact syndrome can occur when an athlete who sustained an initial head injury sustains a second injury before symptoms from the first have fully cleared. This life-threatening occurrence, however, is preventable.

Stringent guidelines are needed to prevent sequelae from repeated minor head injuries sustained in sports. Team physicians can implement and help enforce these guidelines. It has been recommended that written clear-

Table 2. Guidelines for return to football play after concussion

1 (mild)	Return to play if asymptomatic*	Return to play in 2 wk if asymptomatic for 1 wk	Terminate season; may return to play next season if asymptomatic
2 (moderate)	Return to play if asymptomatic for 1 wk	1 mo minimum restriction; may then return to play if asymptomatic for 1 wk; consider terminating season	Terminate season; may return to play next year if asymptomatic
3 (severe)	1 mo minimum restriction; may then return to play if asymptomatic for 1 wk	Terminate season; may return to play next year if asymptomatic	

** No headache or dizziness; no impaired orientation, concentration, or memory during rest or exertion.*

Adapted from: Cantu RC. Guidelines for return to contact sports after a cerebral concussion. *Physician and Sports Medicine* 1986;14:76.

ance, regardless of the grade of concussion, should be obtained before an athlete returns to competition.[3]

When evaluating a downed athlete on the field, you do not have to make a definitive diagnosis. Keep it simple. Decide whether the athlete can come off the field to the sideline or whether emergency medical assistance is needed. Do not move a seriously injured player. Wait for emergency medical treatment to arrive.

Once on the sideline, isolate the player from other players if at all possible. Remove the athlete's protective equipment to do a thorough examination. Again, it is not necessary to make a definitive diagnosis, but only to assess whether the athlete can return to the game. Serial examinations are important because the initial examination may not disclose the severity of an injury, especially if it is a head injury.

To assess whether the athlete can return to a sport, use functional tests that are sports specific (e.g., single leg hopping, squatting, duckwalking, somersaults, push-ups, running or jumping. Before re-entering the contest, the athlete should also regain full painless range of motion of the injured area and normal strength that is symmetrical and equal to the opposite side. If in doubt, keep the athlete out of participation. Retain the helmet or other needed equipment to ensure compliance with your decision.

Treating injuries. I follow the PRICER technique (prevention, rest, ice, compression, elevation, rehabilitation) for treating sports injuries. This comprehensive approach helps reduce the incidence of injuries and, when they occur, relieves the morbidity from swelling and stiffness. Recurrences from inadequate rehabilitation are also decreased.

I strongly advise documenting all injuries, identifying the players involved, and communicating directly with the coach and parents if possible. Many parents attend high school sporting events and direct contact with anxious parents is always advisable if circumstances permit. If indicated, make written recommendations for follow-up treatment and further medical evaluation as criteria for further return to sports. I use preprinted instructions that deal with head and soft tissue injuries. Check with both teams and coaches at half-time and after the game to see if any unrecognized or additional injuries have occurred.

Getting involved

The more familiar the team physician becomes with the athletes during games and practices, the more he or she can relate to the athletes and help provide advice and counseling on subjects beyond sports injuries. Physicians are often asked to provide advice to coaching staff and school officials about subjects as diverse as AIDS awareness and anabolic steroid use.

If you want to be involved with high school sports, call the athletic director at your local high school or talk to one of the coaches directly and express your interest. Most high schools welcome our involvement and in my experience are extremely cooperative in tailoring a schedule to fit a busy office practice.

Two very good references for gaining some expertise in treating minor sports injuries are *The Team Physician's Handbook* by Morris Mellon (Mosby, 1990) and the second edition of *Athletic Training and Sports Medicine* (American Academy of Orthopaedic Surgeons, 1991).

You need not be an orthopedic surgeon to cover high school sports. Family practitioners and pediatricians in Anne Arundel County have done excellent jobs for their teams for a number of years. In some situations, physicians work together to cover a high school or team. Although most sports injuries are musculoskeletal, they usually are minor, and most physicians rapidly gain competency and skill in treating them.

I would also advise talking to local physical therapists to see if they would be interested in helping you cover a team. In our area, physical therapists are very involved in high school sports coverage and many visit their schools daily to see athletes who may have been injured during practice. Athletic trainers provide an invaluable service to the high schools in our county. They attend most practices, which is when most injuries occur. By encouraging your school system to use athletic trainers, your job as team physician will be easier.

Time commitment

Team physicians are expected to be available to cover home games. Once established, most physicians also travel with their teams. Due to scarce school resources, being available for preseason physicals also helps. Seeing injured athletes on an emergency basis and communicating either in writing or by telephone with the coach on a player's ability to practice or play is also very helpful to the coach.

The commitments as a team physician are difficult to fit into a busy office practice and family life, but the satisfaction of seeing your patients able to compete successfully, or being involved with your son's or daughter's team, outweigh the hassles.

High school athletes work extremely hard, both during the season and in the off-season to participate in their particular sport. For many, sports are critical to their identity and acceptance among their peers and may in fact be one of the most rewarding achievements of their life. By providing the right amount of encouragement and medical support, we can allow them to be successful. In doing so, we not only help our community, we enrich our own lives.

THOMAS J. HARRIES, M.D.
Dr. Harries, an orthopedic surgeon specializing in sports medicine in Annapolis, is the team physician for two high schools, sports medicine consultant to the U.S. Naval Academy, and an assistant clinical professor of surgery at the Uniformed Services University of the Health Sciences in Bethesda.

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Caring for athletes in youth sports

Fifteen years ago, I was watching my oldest son's youth championship lacrosse game. On this particular day I was standing on the sideline next to the team. Our star defense player had taken a fall onto his outstretched arm. The coach called a timeout. Our player seemed to be favoring his left arm as he came off the field. The coach asked him if he was OK and he responded,"fine." Nobody was asking me to look at the player, and not knowing the coach well, I wondered if I should involve myself. I decided to anyway and asked the young man what had happened. He could move the wrist and hand, but I found point tenderness that made me uncomfortable. We needed him in the game and he was insisting on returning, but I knew he probably had fractured his wrist. Returning to play would be dangerous and risk further injury. I conveyed my concern to the coach and the athlete did not return to the game. Radiographs taken later at the hospital confirmed the player had a fractured wrist. What would have happened if I had not been there and gotten involved?

Today our youth coaches are in approximately the same situation as that day 15 years ago. They agree to coach a team not realizing that they also will assume the responsibility for making medical decisions they are probably ill prepared to make. If we want to improve the medical care of our youth athletes, it is up to us, the medical professionals. Professional and college teams

have athletic trainers and team doctors. Most high school coaches have some training in the care and prevention of sports injuries, and they often have a physician or athletic trainer to assist them. Younger players, however, often have inexperienced coaches who receive little if any help from health professionals. Many youth coaches are fathers or mothers who have no formal training in caring for sports injuries. Yet they must assume the responsibility of making medical decisions, both on the field and on the sideline.

Many counties (including Anne Arundel, thanks to Parks and Recreation director Joe Cannon and Maryland Delegate Mike Busch) have seminars for youth coaches. After completing the seminar, coaches receive a certificate that must be renewed every three years. Although a significant step, one workshop lasting an hour every three years is unlikely to have a significant impact on a coach's ability to handle sports injuries consistently in an appropriate manner.

What can you do as a health professional? I have three suggestions.

- Become the game physician.
- Give sports-specific injury advice in your office.
- provide educational materials and workshops for area coaches.

The game physician

Many physicians attend youth sporting events, usually to watch their own children play. Instead of being just a spectator, become the game doctor. Tell your child's coach that you want to assume the responsibility. Promise the coach you will not interfere with coaching and the coach will be grateful not to have to worry about the injuries. Volunteer ahead of time, before the game and before the season, if possible. Spell out what you will do. Suggested responsibilities include:

- having a telephone available for emergency calls;
- providing emergency care to an injured athlete on the field and on the sideline;
- making all medical decisions (e.g., calling 911, returning the athlete to play, advising against play);
- splinting injured extremities; and
- talking to parents about the injury and giving follow-up advice.

The coach should be responsible for having a medical kit and ice available. The kit should be in the coach's possession at all times because injuries may occur at practice when you are not present. In your absence, the coach will have to attend to practice injuries. However, coaches can more easily handle injuries at practices because there are no game pressures, no opposing team, no referees, and no game clock.

Office advice

Hospital emergency rooms treat four million young athletes per year but eight million more will be treated by family physicians in the office. When youth athletes come to your office and you have made the appropriate diagnosis, a treatment plan should include:

- educational materials outlining the problem;
- a program to avoid muscle atrophy and loss of fitness during recovery;
- a note to the coach with estimated dates for returning to practice and returning to games, which are not necessarily the same.

When you have decided the injury has healed, sports-specific functional testing before returning the athlete to play is important. What exactly is the athlete going to need to do? For lower extremity injuries, determine that there is pain-free range of motion and normal strength. Then have the athlete do single leg hops, jumping jacks, crossovers, and figure eights. There should be no pain or hesitancy. Have the athlete run down the hall and I look for a limp. Then have them make the movements they will be required to make with their sport. In upper extremity injuries, testing is the same except that the athlete should do pushups or another similar activity that relates to the specific sport.

A written note to the coach releasing the athlete to return to play is both courteous and helpful. Depending on the type of injury, ask the coach to change the athlete's playing position for an initial period upon return to help in complete recovery. In lower extremity injuries, the change may require less running (e.g., from midfield to defense in lacrosse). In upper extremity injuries it might be a switch from third to first base. Do not expect the athlete or the parents to communicate this message to the coach. A parent's telling the coach that the doctor recommends that the child play defense can result in confusion

and misunderstanding. These suggestions will be useful regardless of the type of injury with which you are dealing.

Educational materials and workshops

Educating youth coaches can take one of two forms: hands-on experience and written information. Educational seminars like those in Anne Arundel County are beneficial. Have your Parks and Recreation director help you set up a seminar if possible. At the very least, get a list of youth coaches in your area. An educational workshop in your office would be invaluable. Suggestions for a workshop include:

- keeping the number to about 10 to 15 coaches;
- giving a pretest to participants focused on what they need to know;
- stressing basic knowledge and skills (e.g., checking range of motion, splinting, mental status evaluations);
- giving them pearls concerning critical injuries (head, neck, chest, abdomen, spine, heat).

To provide written information, many excellent reference materials are available (see suggested reading at the end of the article).

Several years ago, I became concerned that we are asking a great deal of these volunteer coaches. How are they to remember all they need to know about sports injuries? What if they forget what they read six months ago? To address the problem, I wrote a practical manual for youth coaches, *"Sideline Help." A Guide for the Immediate Evaluation and Care of Sports Injuries*. The manual is meant to be *used* on the sidelines. Flowcharts take the coach through all the diagnostic steps that must be followed. It also helps the coach answer the following questions:

- Can I move the athlete?
- Should I call 911?
- What should I do while waiting for the paramedics?
- Should the athlete see a doctor today?
- Can the athlete return to play today?
- What should I tell the parents?

In addition to covering basic knowledge and essential skills, the manual includes sections on critical injuries, internal organ injuries, facial injuries, and extremity injuries. Use this information for your workshops. You can develop your own pretest or use ours. Give the manual to your child's coach as a gift for all the time he or she has invested in your family. You may find it useful, as I do, on the sideline.

I urge you to get involved in some way, big or small. With your help the quality of care for the youth athlete will improve and our youth coaches will thank you.

Marshall K. Steele, III, M.D.
Dr. Steele, a specialist in arthroscopic knee surgery and the surgical treatment of arthritis, is the founder of the Maryland Knee and Hip Center and the director of surgical services at Anne Arundel Medical Center. He was a team physician for the 1984 Olympics.

Suggested Reading

1. *Principles of Athletic Training.* Mosby Year Book, 1993.
2. *Athletic Training and Sports Medicine.* American Academy of Orthopedic Surgeons, 1991.
3. *Sideline Help.* Human Kinetics, 1996 (1-800-747-4457).
4. *Sport First Aid* (video). Human Kinetics, 1992. ■

Sports and recreation for physically challenged athletes in Maryland and beyond

This month, one of the most important athletic events in the world is coming to Atlanta, Georgia. The Paralympics is an event that showcases the talents of physically challenged athletes from around the world who will compete for medals in sports such as archery, boccie, goal ball, track and field, swimming, soccer, and table tennis. To reach the Paralympics, athletes must train as hard as their able-bodied counterparts. The motto for these games is *The Triumph of the Human Spirit.* More than any previous Paralympics, this year's event will also demonstrate the skill of America's youth as the athletes who have been given the opportunity to

train and compete come of age. Maryland will be well represented in track and field, swimming, and table tennis. Athletes from the Bennett Institute for Sports Medicine & Rehabilitation in Baltimore will attend the games, not as competitors this tune, but as spectators with dreams for the year 2000 and beyond.

This article discusses the opportunities for and the benefits and rewards of participation in sports and recreation for the physically challenged. Elite athletes competing for the gold medal or recreational athletes improving their tennis serve have one thing in common: opportunity. Research has long since demonstrated the correlation between physical activity and health benefits such as improved physical functioning, emotional well-being, and psychosocial improvements such as improved self-esteem. These benefits also are available to the physically challenged if they have the opportunity to participate. The Bennett Institute Physically Challenged Sports and Recreation Program of The New Children's Hospital was established in 1990 to meet the need for a comprehensive experience for physically challenged children and young adults.

The program's mission is to promote, develop, and provide athletic and recreational opportunities for physically challenged children and young adults with congenital and acquired conditions such as cerebral palsy, muscular dystrophy, osteogenesis imperfecta, arthrogyposis, and amputations. The program was founded on the philosophy that the physically challenged share the same desire and need for participation as their able-bodied peers. These desires and needs are met through a comprehensive sports and recreation program that allows each individual to participate at his or her own level. Three program levels are available: motor development, recreation, and athletics.

Motor development

Designed for children aged 2 to 7 years, this program provides the initial exposure to movement and sports-related activities that can serve as the foundation for future experiences. Our goal is to get the children involved in activity as early as possible so that there is never a question that they can participate in sports and recreation. It also awakens the family to the child's potential for participation in sports and recreation despite physical limitations. A wide variety of experiences is provided, from gymnastics to lacrosse to swimming. All activities are designed to enhance skill acquisition and improve body awareness, coordination, and fitness. Swimming is an integral component because it can lead to the exploration of water sports and provide the family with confidence to pursue these activities.

An annual event called Motor Development Day provides a wonderful culmination of the experience as the young athletes demonstrate their newly learned skills for their families. Competitive experience is available for the 5- to 7-year-olds in the various disability sports organizations. As with all our programs, however, personal goals are developed and stressed.

Recreation

The second stage in the development of the physically challenged athlete is the pursuit of a single sport or recreational activity. Once a week in an hour-long session, each participant practices a sport such as archery, allowing skill development in a small group setting. Activities currently available at the Bennett Institute include archery, baseball, basketball, cycling, fitness, karate, soccer, snow skiing, swimming, table tennis, tennis, and weight training. The Bennett Institute program serves as a resource for parents and children who wish to experience these sports. Specially designed handcycles and foot-powered bicycles give people a chance to try this expensive equipment. Racing chairs, mono-skis, and bi-skis for sit-down skiers and ski bras and assistive devices for stand-up skiers allow exposure to the slopes and the joy of a family recreational activity. Adaptive archery equipment allows archers to shoot with their mouths or to use a bowstand to develop the skills necessary to participate. Lighter tennis rackets allow young athletes to develop and someday compete with family members with the only allowance being two bounces instead of one. Our philosophy is, let participants try all activities in the hope that they will identify one or more to pursue for life. Many athletes also use the recreational stage of our program to develop the confidence and skill to return and compete in able-bodied sports and activities.

Athletics

After participants determine a sport they wish to pursue, they are provided training and competitive opportunities. Although many can use the Bennett Institute only on a weekly basis, some athletes come two to three times a week; others pursue home-based programs such as training on wheelchair roller systems using cycling computers. More and more athletes are incorporating their training into able-bodied programs such as swim teams or high school track teams, a type of participation can lead to the fulfillment of their athletic potential. We constantly strive to identify appropriate competitions and events to challenge our athletes and to provide a continuum of participation, whether it be traveling to Florida for a novice track meet or to Scotland for an international swim meet. To provide motivation for training and goal setting, we maintain a yearly schedule of competitive events called the Bennett Institute Games for the Physically Challenged. The events are open to junior level competitors (usually aged 6 to 18); however, as our athletes age, we often provide older divisions.

Bennett Institute Games for the Physically Challenged

January	swim competition
February	junior wheelchair basketball tournament
February	ambulatory basketball day
March	motor development day
April	electric wheelchair sports
June	USCPAA national youth games/victory games
September	ambulatory sports day
October	triathlon
November	indoor archery clinic and competition

To provide equitable competition and realistic participation, most sports have a classification system to divide wheelchair athletes from ambulatory athletes and differing levels of physical potential within each division. The events are determined by age and classification to ensure appropriateness and safety. Following is an overview of each disability sports organization.

Wheelchair Sports U.S.A.

The oldest of the national organizations, Wheelchair Sports U.S.A. provides opportunities for those who need a wheelchair to participate in sports. The classification system allows athletes to compete standing up in all events except track. Yearly regional competition is provided at Salisbury State University at the Maryland Wheelchair Games. Membership in the national organization is required and athletes can be classified on the first day of the event. Competition includes archery, table tennis, track (100, 200, 400, 1500, 5000), field (club, softball, shotput, discus, javelin), slalom, swimming, table tennis, and weight lifting.

Age divisions are futures (up to age 6), A (ages 7 to 9), B (ages 10 to 12), C (ages 13 to 15), D (ages 16 to 18), and adult (18 and older). There are eight functional classifications ranging from quadriplegic involvement to stand-up competition. National level competition, which is also divided by age, is provided in a different state each year. The 1997 National Junior Wheelchair Games will be held in June in Birmingham, Alabama. The Bennett Institute has sent a team to these games since 1990.

United States Cerebral Palsy Athletic Association

In addition to providing athletic opportunities for athletes with cerebral palsy, this organization offers eligibility to those with other diagnoses as well, such as head injury and stroke. It serves both children and adults. Athletes are classified according to age and level of ability: Class 1 participants have quadriplegic level involvement and use an electric wheelchair; Class 8 athletes have the least level of involvement and participate in an ambulatory fashion. A wide variety of events is available, including wheelchair team handball, ambulatory soccer, ambulatory basketball (under development), boccie ramp divisions, and nonramp cross country.

Disabled Sports U.S.A.

Founded to serve the needs of Vietnam war veterans who had had limbs amputated, Disabled Sports U.S.A. initially focused on winter sports, particularly downhill skiing. The organization has grown to include other events and disabilities in its programs.

It provides age division competition and classes according to the type of amputation. Track and field and swimming are the main venues offering all the conventional events.

The organization provides numerous learn-to-ski programs around the country and can really be credited with the growth of disabled skiing in the United States. Local offerings usually include the Hidden Valley Ski Spectacular at Hidden Valley resort in Pennsylvania in January and the Whitetail Ski Program held in Pennsylvania in March.

National Wheelchair Basketball Association

A part of Wheelchair Sports U.S.A., this organization provides the structure for wheelchair basketball in the United States. There are several adult teams in the Baltimore metropolitan area, including the Baltimore Ravens and the Baltimore Wheelchair Athletic Club. Through the therapeutic recreation program, the city of Baltimore also offers an excellent program called the Metro League, which allows people to participate on a weekly basis without the rigors and demands of travel and scheduling associated with involvement in the regional NWBA. Each year, there are national men's, women's, and college division championships and a junior national tournament.

Other sports

Wheelchair softball. The city of Baltimore offers wheelchair softball on a weekly basis in season and sends a representative team to the national championships.

Wheelchair football. The Bennett Institute offers wheelchair football in the fall with a league of four or more teams. Games are played on a basketball court using a nerf football. Those who cannot catch the ball are allowed to receive by having it hit the chair above the wheels. The adult version of the game is primarily contested on the West Coast; the Blister Bowl is the national championship.

Motor soccer. A game that originated in Canada, motor soccer is controlled and played only by athletes in electric wheelchairs. The game is played on a basketball court with a 24- to 36-inch ball. The object is to push and pass the ball past a goalie into a 3-meter goal. The game requires strategy, setting picks, and teamwork.

Water skiing. During the warmer months, the Baltimore Adapted Recreation and Sports Organization conducts learn to water ski clinics. Specially designed water skis allow the user to ski from a seated position.

Road racing. Most major road races in the United States now provide a wheelchair division.

Sailing. Chesapeake Recreation and Boating provides learn to sail experiences at Sandy Point State Park using Freedom Independence boats. These boats are specially designed to allow the physically challenged to sail from a single seat position that slides from side to side. In addition, all the controls are positioned so that one person can sail the boats.

There are a myriad of sport and recreation opportunities to be pursued by the physically challenged individual. Awareness and opportunity are the keys as we try to educate everyone about the potential for participation in all sports. Participation in physical activity can change young peoples' lives, giving them the confidence to pursue their dreams and the fitness needed to deal with the of stresses of everyday life.

GERRY HERMAN, B.S.
Mr. Herman is the director of the physically challenged sports program at the Bennett Institute for Sports Medicine and Rehabilitation in Baltimore. ■

PERSPECTIVES

A physician and the Senior Olympics

Everything that induces man to sit still, unless it be some necessary employment, ought to be avoided. The diversions which afford the best exercise are hunting, shooting, playing at cricket, handball, golff [sic], etc. . . . Inactivity frustrates the very design of [man's] creation; whereas the active life is the best guardian of virtue and the greatest preservative of health.

W. Buchan, M.D. Domestic Medicine: or a Treatise on the Prevention and Cure of Diseases. *John Hoff, publisher, 1807.*

For many years, physicians have known the value of physical exercise. The cliche of the physician taking Thursdays off to play golf is exactly that: a cliche. But it is a good indication that physicians enjoy the active life.

Another bit of knowledge, denied by the young but well known to everyone else is that everyone gets old. As the saying goes, the alternative is much less appealing. Like it or not, you become a "senior citizen." Oh, how I used to hate that term! But now, I am more at ease with it since I have accepted the fact that I have become one myself.

In fact, the world has also accepted it and, noticing that there are an awful lot of senior citizens around nowadays, has provided them with some special perks. The best known are the many senior citizen discounts. Also, for the 17 years now, the Senior Olympics have been held, and for the first time we are going to let mere baby boomers play too. Any Maryland resident over age 50 is invited, nay, encouraged, to participate.

The Senior Olympics are primarily age-related, not profession-related. A physician competes against the same age group under the same conditions as everyone else. The competitions are great levelers. I was in pretty good shape, I thought, especially after a summer of three softball games per week, so I entered several competitions without adequate practice. I expected to win all sorts of medals, but I was taught a lesson! I found out that I was not the only one in good shape: there are a lot of older men and women out there who are active and alert and who have maintained a high level of fitness for their age.

I have been involved with the Senior Olympics only since 1992. All my experiences have been happy ones, and I have gained many friends at the games. I found that you will not win all gold medals, but neither will you come in last all the time. Whatever the result, however, there is an air of congeniality fostered not only by the competitors, but by the professional staff and volunteers who cover the games.

The Senior Olympics are held each year in Maryland in early October at Towson State University. There is a small fee to participate. The types of competition are many and varied. They are divided into high- and medium-risk events according to the level of physical fitness required. The high-risk sports, which require the highest fitness levels, include swimming, track and cycling events, racquetball and the team sports of softball, basketball, and volleyball. Sports such as archery, billiards, bowling, golf, and standing long jump are classified as medium risk.

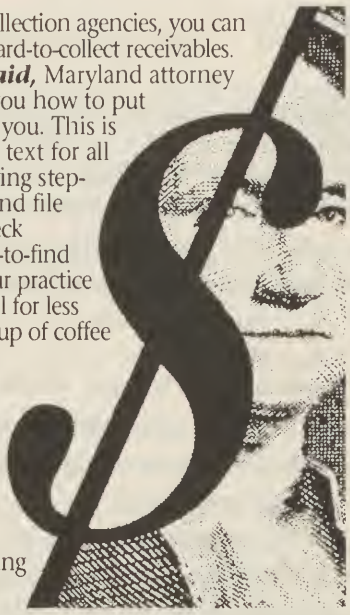
One competes against men and women from across the state in similar 5-year age groups. Men and women compete separately except as mixed doubles in tennis and badminton. On Saturday night after the games, there is a banquet at the university where you can meet your erstwhile competitors and their spouses in a more formal setting. I have enjoyed sitting at a table with former strangers and discussing our lives and our gold medals over a good meal.

If you like to compete in sports in a friendly, nonthreatening situation, write or call for a brochure with registration forms (Maryland Senior Olympics, P.O. Box 1939, Baltimore, MD 21204; telephone 410-830-3163). Entries must be postmarked by midnight, August 11, 1996. I know I'll be there. I hope you will be too.

William A. Andersen, M.D.
Dr. Andersen is a retired pediatrician in Lutherville, Maryland. ■

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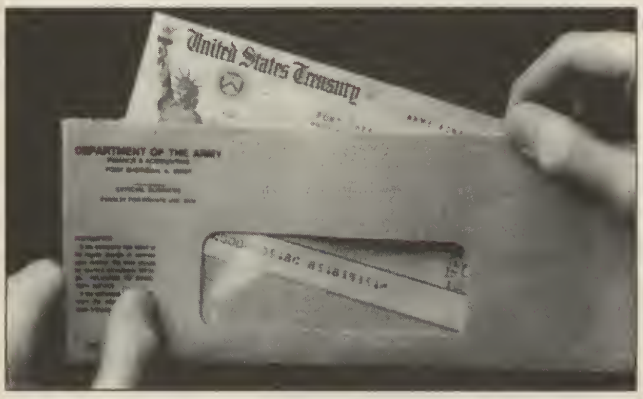
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General Information

Med Chi is committed to providing up-to-date medical information to all Maryland physicians, however, getting this information to physicians in a timely and appropriate way is always a challenge. To meet this challenge, Med Chi with the guidance of its Committee on Scientific Activity has chosen for this semiannual meeting scientific sessions which will acquaint the practicing physician with innovative techniques that can enhance patient care. The program includes sessions on new ways to manage patients with HIV, certain types of cancer, or common orthopaedic conditions. Also included is a session on telemedicine and teleconferencing which outlines how state-of-the-art communications between primary and tertiary care physicians can facilitate diagnosis and treatment through the transfer of information rather than the more common yet cumbersome transfer of the patient.

Med Chi hopes that you will benefit from all the scientific sessions offered at this meeting, and continue to give the Committee on Scientific Activity your ideas and suggestions for topics for future meetings.



Keynote Address

John A. Knote, M.D., was re-elected vice speaker of the American Medical Association House of Delegates in June 1996. A board certified diagnostic radiologist, from Lafayette, Indiana, Dr. Knote has been active in a variety of medical association activities.

Prior to his election as vice speaker, Dr. Knote served five years on the AMA Council on Medical Service, where he chaired the Subcommittee on Health Care Reform/Finance and was a member of the Subcommittee on Managed Care. A delegate to the AMA from Indiana for 10 years, Dr. Knote is a past president of the Organization of State Medical Association Presidents (OSMAP) and serves as secretary for the Forum for Medical Affairs.

Dr. Knote, a Fellow of the American College of Radiology, is a Councilor at Large to the ACR, a member of the ACR Commission on Government Affairs and a member of the Steering Committee of the ACR Council. He currently is Reviewer of the Digest of ACR.

A graduate of Purdue University with a degree in physical education, Dr. Knote received his medical degree from the Indiana University School of Medicine. He is board certified by both the American Board of Radiology and the American Board of Nuclear Medicine. For the past 24 years, he has practiced diagnostic radiology with DMI and the Arnett Clinic in Lafayette, Indiana. He also directed the Purdue University Student Hospital Department of Radiology for 14 years. He is currently Director of Radiology at Lafayette Home Hospital and White County Memorial Hospital.

Visit the Exhibit

Exhibits are an integral part of the Med Chi Semiannual Meeting and are a valuable adjunct to the scientific program.

During this year's semiannual meeting, Med Chi has allocated several special time periods for physicians to meet one-on-one with exhibitors. By visiting exhibits, you will help ensure that Med Chi continues to receive valuable income that allows us to offer these annual and semiannual meetings.

Med Chi urges you to express your appreciation to exhibitors by visiting their booths and discussing your mutual involvement in patient care.

Please note: Exhibits will be open Friday and Saturday only!

CME Information

The Medical and Chirurgical Faculty of Maryland is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

The Medical and Chirurgical Faculty of Maryland designates this educational activity for up to 12.5 hours in Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours that he/she actually spent in the educational activity.

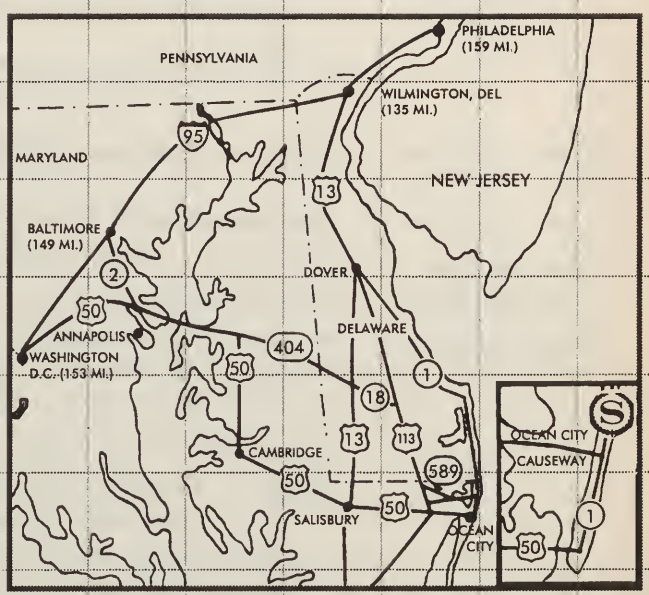
Hotel Information

The Sheraton Fountainebleau Hotel is located at 10100 Ocean Highway. Med Chi has reserved a block of rooms at a special group rate of $135 per night, single or double occupancy (tax and incidentals not included). To reserve your room, call 1-800-638-2100 and tell them you'll be attending the Med Chi Semiannual Meeting. Please reserve early — reservation deadline is August 5, 1996 — but rooms may fill prior to this date.

Check-in time at the Sheraton is 3:00 p.m. **Guests may not be able to check into their rooms until 3:00 p.m. on their arrival date.** Check-out time is 11:00 a.m.

Directions to the Sheraton

The Sheraton Fountainebleau Hotel is located at 10100 Ocean Highway. The map to the right shows how to get there from the surrounding areas.



Friday, September 6

11:30 am - 5:00 pm — **Registration open**

11:30 am - 6:30 pm — **Exhibits open**

1:00 pm — **House of Delegates Registration**

All delegates and alternates must register during this time and be seated by 2:00 p.m. when the meeting begins.

2:00 pm - 5:30 pm — **House of Delegates Meeting**

1:00pm - 2:30 pm — **New Approaches to the Evaluation and Treatment of HIV Positive and AIDS Patients**

Target audience: All physicians

CME Credits: 1.5

Committee on Scientific Activity

The evaluation and treatment of patients who are HIV positive or have AIDS is increasingly falling into the realm of the primary care practitioner. Newly available treatment information provides new opportunities to enhance the health status of these patients.

Speaker: Robert Redfield, M.D., Assistant Director, Institute of Human Virology, University of Maryland School of Medicine

Objectives: Participating physicians should be able to discuss
- updated epidemiological data pertinent to Maryland,
- new approaches in the recognition and treatment of patients with AIDS and HIV positivity, and
- the potentially expanded role of the primary care practitioner in patient management.

2:30 pm - 3:30 pm — **Break — Visit the Exhibits**

3:30 pm - 5:30 pm — **Fundamentals of Risk Management: The Medical Record**

Target audience: All physicians

CME Credits: 2.0

Committee on Scientific Activity and Medical Mutual Insurance Society of Maryland

Medical records are the backbone of the documentation of interactions between physicians and patients. Extremely sensitive information is received and recorded on an on-going basis, therefore, the pertinence of record entries and safeguarding the record are of paramount importance to patient and physician alike.

Speaker: W. Scott Sontag, Esq.

Objectives: Participating physicians should be
- able to describe the requirements of the Maryland Medical Record Statute,
- able to discuss the ethical issues associated with disclosure of medical records,
- aware of the most common types of requests for release of medical records and
- able to describe appropriate risk management guidelines and recommendations for documentation to reduce risks of litigation.

(Medical Mutual members who attend this session are eligible for a 5% discount on their 1997 medical professional liability renewal policy. A $40 program fee is required for this discount.)

3:30 pm - 4:30 pm

Target audience: Primary care physicians

CME Credit: 1.0

Management of an Abnormal PAP Smear

Committee for Scientific Activity

Controversies have arisen in the popular press over the management of the outcomes of PAP screenings. Participants in this program can get updated information to enhance appropriate decision making.

Speaker: Niharika Khanna, M.D. , Assistant Professor, Department of Family Medicine, University of Maryland School of Medicine

Objectives: Participating physicians should be

- able to evaluate risk factors and PAP techniques,
- able to make a management plan,
- familiar with the guidelines set forth in the Modified Bethesda Classification system,
- able to define time frames and schedules for follow-up,
- able to define indicators for a colposcopy or biopsy, and
- able to describe indications and strategies for referral.

5:30 pm - 6:30 pm

Welcome Reception — Exhibits open

Compliments of the Med Chi Insurance Agency, Inc.

All physicians, spouses, and exhibitors welcome.

Saturday, September 7

7:00 am - 8:30 am

Target audience: Physicians and their spouses considering retirement and qualified plan distributions.

CME Credits: 0

Breakfast Seminar - Estate Tax Planning and Retirement Plan Distribution Strategies

Hosted by the Med Chi Insurance Agency

Overview: Innovative concepts for maximizing your estate assets through proper planning to avoid significant erosion from federal estate taxes.

Speakers: John A. Mezzullo, ChFC, CLU
Byron R. Prusky, JD, LL.M., C.P.A.

Seating is limited to 50 participants. There is no charge, however, tickets are required. Tickets will be available at the Med Chi Agency booth in the exhibit area.

7:30 am - 3:30 pm

Exhibits open

7:30 am - 5:00 pm

Registration open

8:30 am - 9:30 am

Target audience: All physicians

CME Credits: 1.0

The Responsibilities of Maryland Physicians and the Role of the Board of Physician Quality Assurance (BPQA)

Committee on Scientific Activity and the Board of Physician Quality Assurance

Communication between practicing physicians and the regulatory agency charged with monitoring health care practitioners is of critical importance.

Speakers: Roderick G. Clark, Education and Training Coordinator, BPQA
Barbara K. Vona, Esq., Chief, Compliance Division, BPQA

Objectives: Participating physicians should be
- familiar with the functions of the BPQA,
- able to describe four announcements required by statute to be posted in a medical office,
- familiar with elements of complete medical records,
- able to identify duties that can and cannot be delegated to other health care practitioners, and
- able to describe the BPQA's investigative process.

8:30 am - 9:30 am

Target audience: All physicians

CME Credits: 1.0

Newer Strategies in the Diagnosis and Treatment of Tumors of the Nervous System

Committee on Scientific Activity

The speakers will describe innovative and exciting techniques to refine the recognition and treatment of tumors of the nervous system. Information presented will enhance decision making as well as the relationship between the primary care physician and the tertiary care specialist.

Speakers: John C. Gutheil, M.D., Assistant Professor of Medicine and Oncology, University of Maryland Cancer Center

Lawrence S. Chin, M.D., Assistant Professor of Neurosurgery, Department of Surgery, Division of Neurosurgery, University of Maryland Medical Systems

Objectives: Participating physicians should be able to
- describe the natural history and outcome of various primary and metastatic brain tumors,
- describe the standard treatment for primary and metastatic brain tumors,
- describe investigational treatments for primary and metastatic brain tumors.

9:00 am - 12:00 noon **Reference Committees**

9:30 am - 10:30 am **Break — Visit the Exhibits**

10:30 am - 12:00 noon **Primary Care Management of Common Orthopaedic Conditions**

Committee on Scientific Activity

Target audience: Primary care physicians

CME Credits: 1.5

Acute and chronic orthopaedic conditions are commonly seen in primary care practice settings. Their recognition, in some instances, may be obvious, but less obvious in other instances. Orthopaedic conditions are often frustrating and challenging to the patient and their recognition and management is of paramount importance to the physician.

Care of the Diabetic Foot

Speaker: Mark Myerson, M.D., Department of Orthopaedic Surgery, Union Memorial Hospital

Objectives: Participating physicians should be able to describe
- appropriate screening procedures of diabetic patients to minimize foot problems,
- evaluation techniques and indications for non-operative and surgical treatment of foot problems, and
- patient rehabilitation after surgery.

Common Upper Extremity Problems

Speaker: Peter Innis, M.D., Private Practice of Orthopaedic Hand Surgery

Objectives: Participating physicians should be able to
- describe appropriate diagnostic tests,
- diagnose the source of most common upper extremity complaints, and
- describe operative and non-operative treatment options.

A Multi-Disciplinary Approach to Total Joint Replacement

Speaker: Mel Daly, M.D., Chief of Medicine, Kernan Hospital, Associate Professor and Director, Division of Geriatrics, University of Maryland School of Medicine

Objectives: Participating physicians should be able to
- identify several types of arthritis, and the joints most commonly affected,
- describe treatments, including medications, physical therapy/exercise, splints, and adaptive aids for daily activities, and
- evaluate joint replacement options and the course of patient rehabilitation.

Saturday, September 7

10:30 am - 12:00 noon

Telemedicine and Teleconferencing

Target audience: All physicians

CME Credits: 1.5

Committee on Scientific Activity

It is critically important to ensure that the most expert and up-to-date information is available to physicians to enhance their decisions regarding patient treatment and care. By using telemedicine and teleconferencing techniques, information gaps can be identified and rapidly closed. These innovative techniques allow decisions to be made and actions taken in a more timely manner and close to where the patient lives. Additionally, these communication capabilities make continuing medical education activities available near to physicians' normal practice settings.

Speakers: Claudia R. Baquet, M.D., M.P.H., Associate Dean, Policy and Planning, University of Maryland School of Medicine

Thomas O. Stair, M.D., Professor of Surgery and Research Director, Division of Emergency Medicine, University of Maryland School of Medicine

Objectives: Participating physicians should be able to

- describe recent innovations and techniques to enhance communications among individual physicians and between practice settings,
- describe methods to enhance consultation and speed up clinical decision making, and
- outline strategies to improve the quality and effectiveness of CME initiatives.

11:30 am - 3:00 pm

Luncheon Meeting of the Alliance to the Medical and Chirurgical Faculty of Maryland

at Fager's Island Restaurant, 201 60th Street and the Bay

Mildred Taylor, President presiding; brief Business Meeting, delicious luncheon and spectacular fashion show!

ALL MEMBERS AND FRIENDS WELCOME! Contact Joann Troisi at 410-539-0872 or 1-800-492-1056 for further details.

12:00 noon - 1:00 pm

Lunch on your own

12:00 noon - 1:00 pm

MMPAC Board of Directors Luncheon

1:00 pm - 2:30 pm

Complementary Medicine

Target audience: All physicians

CME Credits: 1.5

Committee on Scientific Activity

Speakers: Margaret Mullins, M.D., Private Practitioner
Lisa Chun, D.O., Private Practitioner

Consumers as well as providers are evincing particular interest in new/old approaches and interventions for the treatment of common and esoteric clinical conditions.

Objectives: Participating physicians should be

- aware that there are successful ways of approaching health other than/in addition to allopathic medicine,
- aware of some of these complementary approaches, and
- aware of some of the myths about the use of complementary medicine.

1:00 pm - 2:30 pm

Target audience:
All physicians
CME Credits: 1.5

Brain Attack

Committee on Scientific Activity

Speaker: Marian P. LaMonte, M.D., M.S.N., Assistant Professor of Neurology, University of Maryland School of Medicine

The recognition, diagnosis and treatment of strokes is a constant challenge for all members of the health care delivery system. Recently developed therapies are available to enhance the management and improve the outcomes of certain strokes.

Objectives: Participating physicians should be aware of
- the necessity to recognize the signs and symptoms of stroke and to provide emergency triage,
- the basic management and therapeutics of ischemic stroke, and
- initiatives necessary to inform the lay public and emergency personnel of current therapies and research protocols for ischemic stroke patients.

2:30 pm - 3:30 pm

Break — Visit the Exhibits

3:30 pm - 5:30 pm

Target audience:
All physicians
CME Credits: 1.5

Use of Newer Agents for Depression in the Medically Ill

Committee on Scientific Activity

Speaker: Carol Tavani, M.D., Director, Christiana Psychiatric Services, President, Medical Society of Deleware

Patients treated with medications for medical conditions can be subject to significant drug-drug interactions between these medications and psychotropic agents.

Objectives: Participating physicians should
- become familiar with the newer agents available for treatment of depressive syndromes in the medical/surgical patient population, and
- be able to describe the drug-drug interactions between these newer agents and drugs commonly used in the care of these patient populations.

3:30 pm - 5:00 pm

Target audience:
All physicians
CME Credits: 1.5

Update on the Recognition and Treatment of Addictions in Ambulatory Settings

Committee on Scientific Activity

Speaker: Joseph G. Liberto , M.D., Assistant Chief of Psychiatry, Baltimore Veterans Affairs Medical Center, Assistant Professor of Psychiatry, University of Maryland School of Medicine

The prevalence of addiction is greater than society is often prepared to acknowledge. The physician's role in recognizing and initiating treatment for substance abuse and substance dependence can not be overemphasized if treatment efforts are to succeed. Failure to recognize addiction can have a major impact on the overall health status and psychological/social conditions of patients and their families.

Objectives: Participating physicians should be better prepared to
- recognize and diagnose substance use disorders in ambulatory care patients,
- initiate addiction treatment and prevention strategies, and
- make appropriate use of the different types of specialty treatment services available.

Sunday, September 8

8:00 am - 11:00 am

Registration open — No exhibits

8:30 am - 9:00 am

House of Delegates Registration

All delegates and alternates must register during this time and be seated by 9:00 a.m. when the meeting begins.

8:30 - 10:00 am

Gray Areas and Boundaries: Sexual Misconduct in the Practice of Medicine

Committee on Scientific Activity and the Board of Physician Quality Assurance (BPQA)

Target audience: All physicians

CME Credits: 1.5

Speakers: Cheryl Winchell, M.D., Secretary/Treasurer, BPQA
Roderick G. Clark, Education and Training Coordinator, BPQA

Objectives: Participating physicians should be able to
- describe the activities which fall into the "gray area" of boundary violations, and the approaches which reduce the possibility of patient/physician problems,
- recognize when boundaries have been violated, the reasons for crossing the boundaries, how to "get back on the right side," and
- describe the types of patients who could become problems and a physician's personal situation(s) which could contribute to boundary issue problems.

8:30 am - 10:00 am

Minimally Invasive Surgery

Committee on Scientific Activity

Target audience: Primary care physicians, surgeons

CME Credits: 1.5

Speaker: Peter Geis, M.D., Director, Minimally Invasive Surgical Training Institute, St. Joseph Medical Center

New technologies have made possible the development of surgical procedures which minimize tissue damage and post-operative pain, leading to more rapid recovery.

Objectives: Participating physicians should be able to describe
- the benefits of minimally invasive surgery,
- new technologies which make minimally invasive surgery possible, and
- the surgical procedures used in the abdominal cavity and other organ systems which can now be done because of technologies only recently available.

9:00 am - 12:00 noon

House of Delegates Meeting

10:30 am - 12:00 noon

Prescription and Utilization of Drugs: The Dilemma Faced by the Practicing Physician

Target audience: All physicians

CME Credits: 1.5

Committee on Scientific Activity

Physicians who are credentialed to practice in a variety of settings and organizations can be confused regarding formularies. Coordination between the physician and the practicing clinical pharmacist enhances the provision and outcomes of care provided to patients in both ambulatory and in-patient settings.

Speaker: Joseph N. Gallina, Pharm.D., Associate Professor of Pharmacy Practice and Director of Pharmacy Services, University of Maryland Medical Systems

Objectives: Participating physicians will be able to discuss

- problems encountered by the "typical" practitioner in dealing with definitions and applications of formularies in various settings,
- the difference between "formularies" and the "formulary system,"
- steps to access these data bases to ensure better patient care, and
- how physicians can keep their knowledge current.

10:30 am - 12:00 noon

Innovative Approaches to Medical Student and Resident Training in Ambulatory Care Settings

Target audience: All physicians

CME Credits: 1.5

Committee on Scientific Activity

Medical students and residents have traditionally been trained primarily within in-patient settings. However, recent trends from predominately in-patient to out-patient care have made it critical to identify appropriate ambulatory care settings in the community — both metropolitan and rural — where future physicians can be trained to meet the needs of patients in the twenty-first century.

Speakers: David Stewart, M.D., Associate Professor, Department of Family Medicine, University of Maryland School of Medicine

Michael R. Jablonover, M.D., Assistant Professor, Department of Medicine, University of Maryland School of Medicine

Objectives: Participating physicians will be able to

- discuss how curricula have been developed to educate medical students and residents in primary care settings, and initiatives to recruit preceptors for these particularly sensitive roles,
- describe strategies used to evaluate the accomplishment of defined educational goals, and
- discuss the development of core curricula and strategies to enhance communication between the ambulatory practice setting, the preceptors, and those providing supervision and direction in the academic center.

12:00 noon

Adjournment

Registration Form

1996 Semiannual Meeting of the
Medical and Chirurgical Faculty of Maryland
Friday - Sunday, September 6-8, 1996
Sheraton Fountainebleau Hotel, Ocean City, Maryland

Check one:

- ❑ Med Chi member - no charge
- ❑ Preregistered nonmember - $200
  (includes all CME presentations)

Babysitting Services

- ❑ Please check here if you are interested in babysitting services and information will be mailed to you.

Name_____

Address_____

City, State_____ Zip_____

Phone_____

Component Society _____
(County/City)

Spouse name _____
(only if attending the semiannual meeting)

Please return this form (and check made payable to "Med Chi" if applicable) to:

Med Chi Communications Department
1211 Cathedral Street
Baltimore, MD 21201

For additional information, call Beth Schwartz or Joan Mannion at 410-539-0872 from the Baltimore area or 1-800-492-1056 from elsewhere in Maryland.

Special Events

Friday, September 6, 1996
5:30 p.m. - 6:30 p.m.
Welcome Reception

Visit with your colleagues and exhibitors and enjoy drinks and hors d'oeuvres compliments of the Med Chi Insurance Agency and the Sheraton Fountaine-bleau Hotel. Exhibits will be open during this event.

Saturday, September 7, 1996
7:00 a.m. - 8:30 a.m.
Estate Tax Planning and Retirement Plan Distribution Strategies

Attend this special breakfast meeting compliments of the Med Chi Insurance Agency. Tickets are required for this breakfast and must be obtained from the Med Chi Insurance Agency booth in the exhibit area. Seating is limited to 50 people. *No CME will be given for this lecture.*

Alliance

Sports and Tobacco Don't Mix

When you think about athletes and sporting events, is tobacco use an issue that comes to mind? It should be. The tobacco industry spent more than $78 million in 1993 (the most recent year figures are available) on sports promotion in the United States alone. That includes sponsorship of sporting events, advertising and promotion of tobacco products in sports venues, and expenditures for promotional items such as t-shirts and hats relating to the event. Why does the industry devote so much money to sports promotion? Could it be that it recognizes the appeal of sporting events such as auto racing, motor cross, tennis, soccer, and skiing among young audiences? Could the industry be using sports promotion and advertising as a marketing tool to gain new customers?

Consider the fact that tobacco industry sponsorship of televised sporting events became a focus only after the 1971 federal ban on airing cigarette advertising on television and radio. Prohibited from outright advertising in these media, tobacco companies found ways to circumvent the ban. One of these was sports sponsorship and the placement of tobacco billboards and advertisements within sports stadiums to gain maximum television exposure. In these ways, tobacco company brand names and logos receive hours of televised airing. In a 1991 study published in the *Journal of the American Medical Association*, an analysis of a Marlboro-sponsored auto race found that the Marlboro brand name and logo were seen or mentioned close to 6,000 times during the course of the 93-minute broadcast. Last year, the U.S. Justice Department charged that Philip Morris strategically placed its tobacco advertisements in football and baseball stadiums in order to gain television exposure. As a result of the investigation, the company agreed to move or remove ads in many of the stadiums. This is just a small step, however. Much more needs to be accomplished in raising public awareness of how the tobacco industry uses sports sponsorship to promote its products to kids.

This issue was the theme of World No Tobacco Day, 1996, an annual, worldwide event celebrated May 31st. This year's theme, "Sports and the Arts without Tobacco," focused attention on the financial dependence of many sports and cultural organizations on tobacco sponsorship. The World Health Organization (WHO), sponsor of the event, asked the sports and arts communities to pledge not to promote tobacco as part of sports and cultural events and for advocates everywhere to raise awareness of this issue and seek alternate sources of funding for events. The major sports event of the year has clearly heeded this message. The 1996 Centennial Olympic Games in Atlanta have banned tobacco sponsorship and promotion, including prohibiting the distribution of promotional items and free samples in all facilities and limiting smoking and the sale of tobacco products in the venues.

If you would like to end tobacco sponsorship and promotion at sporting events, here are some suggestions of ways to get involved:

- Ask local sports facilities and stadiums to refuse tobacco advertising and hosting of tobacco-sponsored events.
- Don't patronize sporting events sponsored by tobacco companies.
- Create or support alternate forms of funding for sports events. It's hard for organizations to turn down tobacco industry funding when it is the only money offered.
- Write to media outlets that air tobacco-sponsored sporting events and protest the advertising time devoted to a product that kills more than 400,000 Americans every year.

The Alliance has a long-standing commitment to improving the health of Marylanders, including supporting tobacco use prevention and cessation. The Alliance has been a member of the Smoke Free Maryland Coalition since its inception and supports the goals of the Coalition to prevent and reduce tobacco use and its related morbidity and mortality throughout the state. To find out more about the Coalition, call 800-492-1056.

Kari Appler, B.A.
Ms. Appler is the project coordinator for Smoke Free Maryland. ■

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Volunteers Overseas

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The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

Lipid disorders training program—advanced update. Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150. — **Sept. 6**

Johns Hopkins hepato-biliary update. Princess Royale Oceanfront Hotel and Conference Center, Ocean City, MD. 10 Cat 1 AMA credits, 9 AAFP credits. Fee: $335/physicians; $125/residents, fellows, other allied health professionals. — **Sept. 7–8**

Lipid disorders training program—basic course. Credits: TBA. Fee: $250. — **Sept. 17–19**

Fourth annual progress in hematologic malignancies and bone marrow transplantation. 7.5 Cat 1 AMA credits. Fee: $125. — **Sept. 20**

Pediatrics for the practitioner update '96. 14 Cat 1 AMA credits. Fee: $300/physicians; $210/residents, fellows, allied health professionals. — **Sept. 26–27**

Third colloquium and workshops on laryngeal disorders, hands on laboratories. Renaissance Harborplace Hotel and Johns Hopkins Medical Institutions, Baltimore, MD. Cat 1 AMA credits pending. — **Sept. 27–28**

22nd Annual topics in gastroenterology and liver disease. Cat 1 AMA credits pending. Fee: $535/physicians; $285/residents, fellows; postmarked before Sept. 4, $495/ physicians, $250/residents, fellows. — **Oct. 2–4**

Tenth annual core content of emergency medicine: a comprehensive review. Baltimore Marriott Inner Harbor, Baltimore, MD. Cat 1 AMA, ACEP, and AAFP credits available. Fee: $975/physicians; $775/residents, fellows. — **Oct. 7–13**

Advances in pediatric nutrition. Renaissance Harborplace Hotel, Baltimore, MD. Fee: $250/physicians; $200/residents. — **Oct. 28–30**

Advanced pediatric life support courses. 18.5 Cat 1 AMA credits. Fee: $595. — **Nov. 11–13, June 9–11, 1997**

Ophthalmology for the pediatrician and practitioner. Cat 1 AMA credits available. Fee: $130/physicians; $95/residents, fellows, allied health professionals. — **Nov. 15**

The first Johns Hopkins international symposium on gastrointestinal motility disorders. Harbor Court Hotel, Baltimore, MD. 14 Cat 1 AMA/AAFP credits available. Fee: $325/physicians; $250/residents, fellows. — **Nov. 15–16**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

The Johns Hopkins Medical Institutions (continued)

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Continuously throughout the year

Academic rounds and conference. Each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

PHYSICIAN'S RECOGNITION AWARD

During May 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

James E. Abell
Dara S. Afshar
Nancy K. Bailowitz
Bibhas C. Bandy
Scott C. Bilbro
Jacalyn Blackwell-White
Robert H. Chu
Nancy J. Cohen
Stephen P. Cohen
William F. Colliton
Gwendolyn L. Dunmore
Richard P. Dutton
William F. Fritz
Arnaldo A. Garro
Timothy B. Gilbert
Pamela Guha
John H. Hebb
Bartholomew T. Hogan
Byron S. Hurwitz
Daniel S. Jaffe
Mahatab V. Jhaveri
Stephan C. Kurylas
Jack Kushner
Iradj Mahdavi
Lawrence Maryanov
Stephen J. Meister
Mack C. Mitchell
William E. Nelson
Steven L. Novick
Carolyn J. Pass
Gary C. Prada
Jeffrey C. Schultz
Anne M. Shewan
Eric Z. Silfen
James W. Slack
Michael C. Sokol
Jonathan R. Walburn
Isaac Weiszer

Miscellaneous

1996 Semiannual meeting of the Medical and Chirurgical Faculty of Maryland. Sheraton Fontainebleau Resort and Conference Center, Ocean City, MD. Cat 1 AMA credits available. Fee: free to members. **Sept. 6–8**

New techniques and concepts in cardiology. Sponsored by the American College of Cardiology. Hyatt Regency Capitol Hill, Washington, DC. 16 Cat 1 AMA credits. Info: 1-800-253-4636, ext. 695. **Oct. 24–26**

Self-Directed CME Activities

Maryland physicians' campaign against family violence, module one: domestic violence. Sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10. 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Maryland physicians' campaign against family violence, module two: child maltreatment. Sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10. 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Continuously throughout the year

Fluorescein angiography conference. Sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 am. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds. Zamoiski Auditorium, Thursdays, 9:00 to 10:00 a.m. Info: 410-578-5528.

PHYSICIAN PLACEMENT SERVICE

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral Street
Baltimore, MD 21201
410-539-0872
1-800-492-1056

Physicians wishing to locate in Maryland are invited to submit a résumé to be kept on file with the Physician Placement Service. Candidates are requested to inform the Faculty when they are no longer available for consideration opportunities in Maryland.

MMJ announcements for physician placements in the classified advertisements are charged at the regular classified advertising rate.

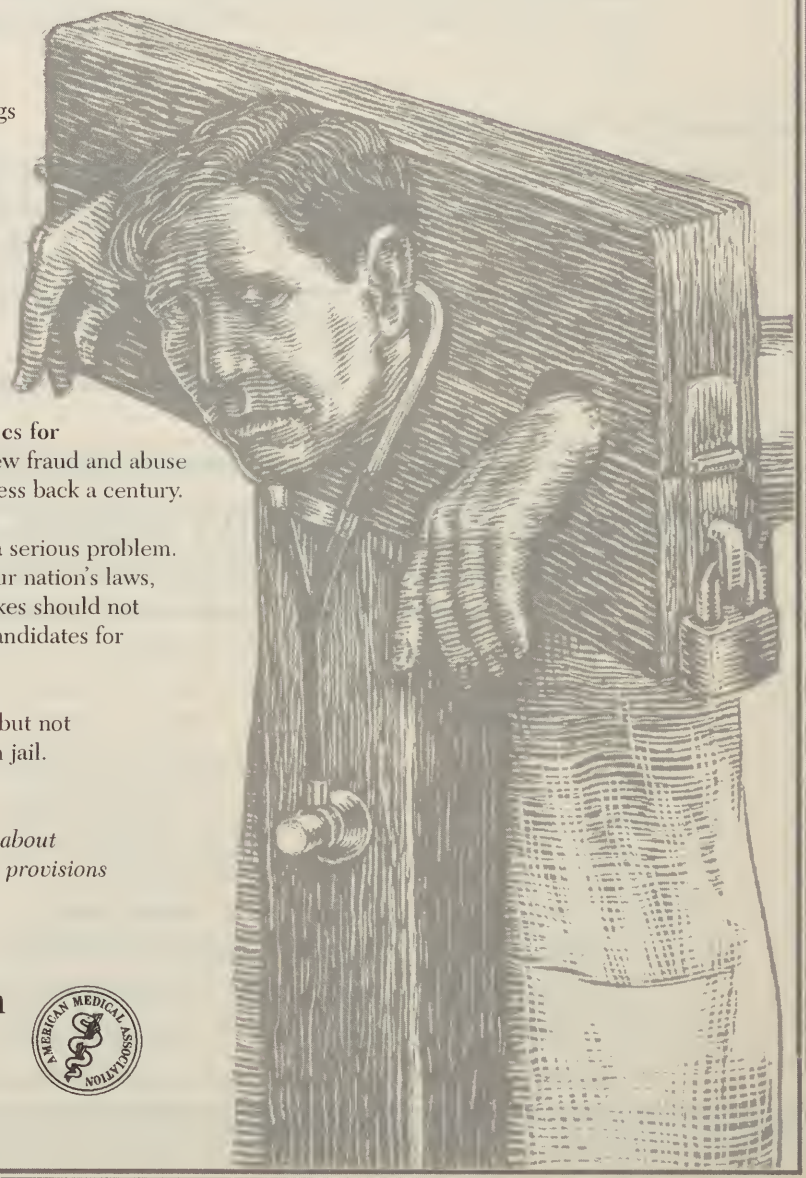
America needs health insurance reform. But unfair fraud and abuse laws need a second opinion.

Congress is moving now to pass long-needed legislation making health insurance portable and ending coverage exclusions due to preexisting medical conditions.

Congress is also considering ways to end the discrimination in health care by providing a greater range of treatment choices for patients through Medical Savings Accounts and enhanced coverage of mental illness.

The nation—and our patients— need these reforms.

HOWEVER...some proposals in the House and Senate go too far. Despite months of negotiations, **legislation is now being considered that could put your doctor in jail or exact grossly excessive fines for unintended paperwork mistakes.** These new fraud and abuse laws would set basic principles of due process back a century.



Medicine agrees that fraud and abuse is a serious problem. If doctors willfully and knowingly violate our nation's laws, they should be punished. But honest mistakes should not make physicians—or any other citizens—candidates for incarceration.

America needs health insurance reform...but not unfair laws that will put innocent doctors in jail.

Call the AMA's Grassroots Hotline at 1-800-833-6354 to obtain more information about joining the campaign to strike these onerous provisions from the law.

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August, 1996
Selected Communicable Diseases in Maryland in 1995
(Continued from July, 1996)

HAEMOPHILUS INFLUENZAE DISEASE (74) 1.5/100,000 (U.S. 0.4/100,000)

The trend for all serotypes of invasive *Haemophilus influenzae* disease from 1985 to 1995 is shown in Figure 2. Ongoing active surveillance for invasive *H. influenzae* disease in hospitals and medical laboratories began in November 1991. This includes **all** serotypes of *H. influenzae*, not only serotype b. This active surveillance may account for the high rate in Maryland compared to the national average.

Similar to 1994, over 50% of the 1995 cases were in the Baltimore metropolitan region. The incidence in Baltimore City increased from 2.1 in 1994 to 3.8 in 1995. The Prince George's and Montgomery metropolitan area accounted for 14% of the 1995 cases compared to 26% in 1994. The drop in the Prince George's county incidence rate from 2.0 in 1994 to 0.4 in 1995 accounted for this decrease. The highest county incidence rates were observed in Washington (3.1), Baltimore (2.5), and Harford (2.4) counties.

The incidence rate was 1.3 for males and 1.6 for females. Incidence rates by race were 1.3 for whites and 1.9 for non-whites. There was one case reported among the Hispanic population in 1995. The case fatality rate for known outcomes in 1995 was 14.9% which is similar to the 1994 rate.

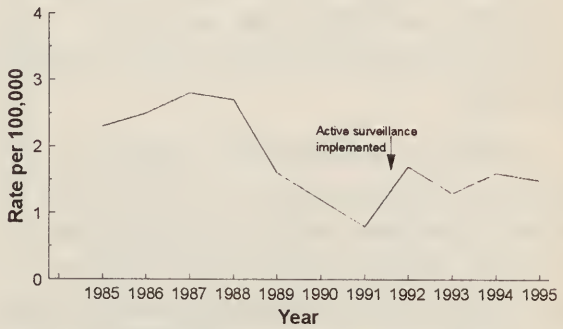


Fig 2. Haemophilus influenzae invasive disease (all serotypes). Incidence in Maryland, 1985-1995.

The age of cases ranged from one day old to 94 years (median 69 years). The number of cases by age categories from 1987 to 1995 is shown in Figure 3. Only 4 cases of invasive *H. influenzae* disease, down from 9 cases in 1994, were reported in 1995 among children 2 months - 5 years of age (only 3 were type b). There is an increasing trend in cases in the adult population with 78% of the 1995 cases 20 years of age or older.

Data on the serotypes of *H. influenzae* isolates were available for 59 isolates, 22 (30%) of which were type b, 3 were type a, 1 was type e, and 7 cases did not have the type specified. Twenty-six (35%) isolates were nontypeable.

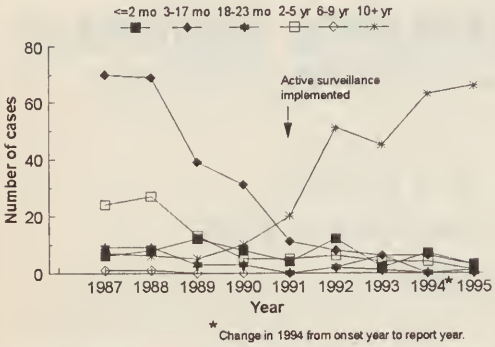


Fig 3. Haemophilus influenzae invasive disease (all serotypes). Cases reported by age group, Maryland, 1987-1995.

The infections seen in the 74 cases of *H. influenzae* included bacteremia (38 cases, 52%), pneumonia (14 cases, 19%), meningitis (12 cases, 16%), and single cases of cellulitis, epiglottitis, peritonitis, and amnionitis. Four cases (6%) had other infections that were not described.

Antibiotic susceptibility testing of *H. influenzae* isolates showed 13 (39%) of the 33 isolates tested were resistant to ampicillin, and 5 (21%) of 24 isolates were resistant to chloramphenicol. In comparison to previous years, the percentage of ampicillin resistant isolates in 1994 was 45%, and 33% in 1993.

Hepatitis A (221)
4.4/100,000 (U.S. 11.0/100,000)

The trend of hepatitis A from 1986 to 1995 is illustrated in Figure 4. The incidence rate in 1995 (4.4) increased slightly from the rate in 1994 (4.0). In 1995, 53% of the 221 cases were reported from Baltimore City and Montgomery County with 66 and 52 cases, respectively. The highest rate occurred in Baltimore City (9.5), followed by Garrett (6.8) and Montgomery (6.4).

The ratio of male to female cases was 2.5:1. The case ratio of whites to non-whites was 4.5:1; the race of 30 (13.6%) was unspecified. The rate in whites was 4.4, and the rate in non-whites was 2.3. White males had the highest rate (6.6), followed by non-white males (3.4), and white females (2.3).

Of 177 persons reporting an occupation, 19 reported jobs with increased risk of acquiring or transmitting hepatitis A: 11 foodhandlers, 6 health care providers, and 2 child or elderly care worker.

Among the 186 (84%) cases on whom information was available, 28 (15%) had travel outside the U.S. or Canada, 25 (13.4%) consumption of raw shellfish, 21 (11.3%) contact to a confirmed or suspected case of hepatitis A, 11 (5.9%) household contact to a child or employee in day care, 8 (4.3%) injection of street drugs, and 6 (3.2%) attendance or employment at a child day care center.

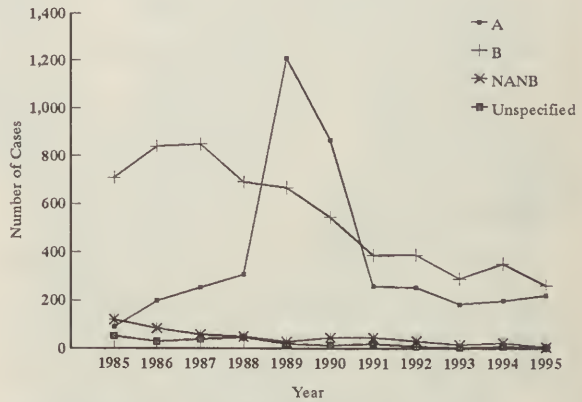


Fig 4. Hepatitis (A, B, NANB, and Unspecified), Cases reported, Maryland, 1985-1995.

Hepatitis B (262)
5.2/100,000 (U.S. 3.8/100,000)

The trend for hepatitis B from 1986 to 1995 is illustrated in Figure 4. The incidence rate per 100,000 population in 1995 (5.2) decreased from the rate in 1994 (7.0). The highest rate occurred in Baltimore City (11.8), followed by Dorchester (9.9), Somerset (8.2), and Prince George's County (7.5).

The ratio of male to female cases was 1.4:1. The incidence rate was 6.2 in males and 4.3 in females. The incidence rate for both males and females was highest in the 30-39 years age group (12.1, 8.0, respectively). The incidence rates by age group and sex are shown in Figure 5. Among the 90% of cases for which race is known, the rate in non-whites (9.9) was nearly 4 times higher than the rate in whites (2.5).

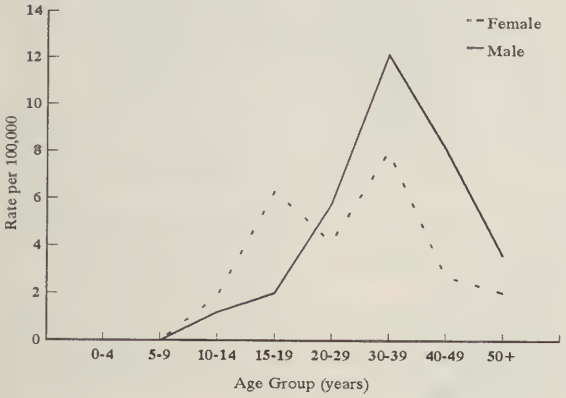


Fig 5. Hepatitis B. Incidence by age group and sex, Maryland, 1993.

Of the 98 adults with known occupation (excluding students and unemployed), only 2 were health care providers with direct patient contact.

Information on exposures with potential risks for hepatitis B acquisition during the 6 months prior to onset of illness was available for 90 (34%) of the cases. Forty-three reported a single risk factor while 33 reported multiple risk factors. The risk factors reported included multiple sexual partners (47), contact with a confirmed or suspected case of hepatitis B (27), use of needles for injection of street drugs (22), dental work or oral surgery (9), transfusion (4), homosexual or bisexual preference (3), dialysis (3), and medical or dental field employee (2).

LEGIONELLOSIS (29)
0.6/100,000 (U.S. 0.4/100,000)

The reported cases of legionellosis in 1995 decreased by 65% from the cases in 1994 (82). The number of cases by jurisdiction is shown in Table 1 (see July 1996 issue). Almost one half (48%) of all cases occurred in Baltimore City and County. Washington County (2 cases) had the highest rate (1.6) in the state.

The male to female ratio was 1.6:1. The incidence per 100,000 population in females (0.4) was lower than the rate in males (0.7). The ratio of white to non-white cases was 3.0:1; the race of 5 cases was unknown. Ages ranged from 24 to 91 years (median 54 years); the age of 2 persons was unknown. The incidence per 100,000 population by age group and sex is shown in Figure 6.

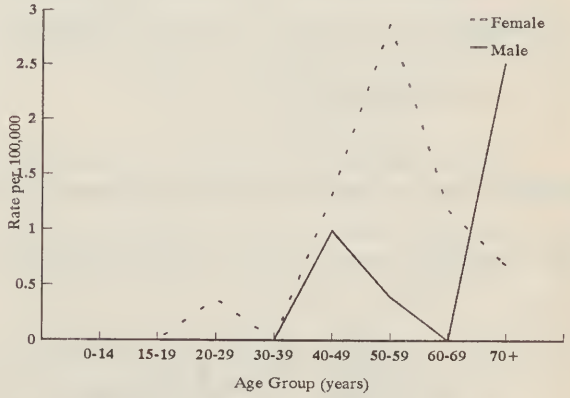


Fig 6. Legionellosis. Incidence by age group and sex, Maryland, 1995.

Of the 15 cases on whom information was available, 9 (64%) were smokers of more than 10 cigarettes per day. Of the smokers, one had diabetes, but no other predisposing factors were identified. Among the 5 (36%) non-smokers, 1 had diabetes and 1 was undergoing immuno-suppressive treatment. Two cases reported no predisposing factors. The only possible sources of exposure noted by the fifteen cases were travel overnight (3) and working in a hospital (1). There were 5 deaths among the 24 cases with a known outcome for a case fatality rate of 20.8%.

LYME DISEASE (336)
6.7/100,000 (U.S. 3.7/100,000)

Table 1 (July 1996 issue) shows the 368 cases reported in 1995. Thirty-two of those had onset in earlier years. This report summarizes the remaining 336 cases that had onset in 1995. Lyme disease decreased by 2% from 1994 (343 cases). The trend in the past 9 years is shown in Figure 7. The highest rates occurred in Kent (85.6), Queen Anne's (63.7), Cecil (40.3), and Talbot (31.3) counties.

The male to female ratio was 1.2:1.0. Among the 314 cases with known race 294 (93.6%) were white, 14 (4.5%) black, and 6 (1.9%) other races. Ages ranged from 3 to 87 (median 37 years). Thirty-three percent of the patients were under 20 years of age.

A definite tick bite prior to onset of illness was reported by 149 (44%) cases, 128 (38%) had no known tick exposure, and 59 (18%) had uncertain exposure.

Seventy-eight percent of the 336 cases had onset of illness in May through September; the peak incidence was in June (105 cases). Of the 336 cases, 223 (66%) had erythema migrans, 83 (25%) had arthritis, 37 (11%) had Bell's palsy, 17 (5%) had radiculoneuropathy, 10 (3%) had lymphocytic meningitis, 6 (2%) had cardiac symptoms, and 3 (1%) had encephalitis.

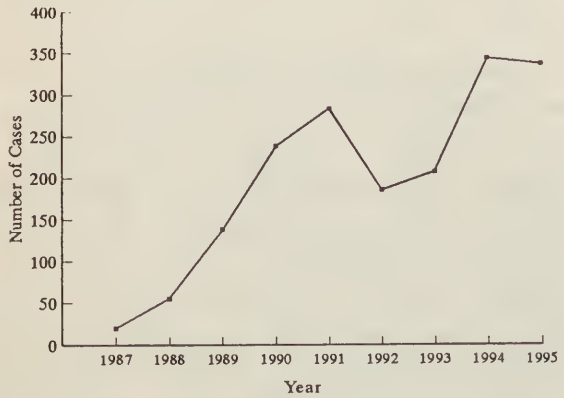


Fig 7. Lyme disease. Cases reported, Maryland, 1987-1995.

MALARIA (63)
1.2/100,000 (U.S. 0.5 /100,000)

Sixty-three cases were reported in 1995 compared to 83 cases in 1994. Five counties and Baltimore City reported malaria cases in 1995. The majority of cases occurred in Prince George's (39.7%) and Montgomery (38.1%) counties.

Incidence was noted to be higher in men (male:female rate ratio 1.4:1), and non-white races (non-white:white rate ratio 9:1). Cases ranged in age from 16 months to 85 years (median 30 years). The 30 to 39 year age group had the highest incidence of disease (.3/100,000). Forty-three (69.4%) of cases were hospitalized. No deaths were reported; the survival status of 2 cases is unknown.

One case was apparently induced by organ transplantation from an infected donor (a family member who came from Africa in 1993). The majority of other cases appeared to be imported. *Plasmodium falciparum* (35 cases), was acquired primarily from west and central Africa, but also from S. Africa and SE Asia. *P. malariae* (4 cases) was acquired in west Africa and India, and 1 case of *P. ovale* was acquired in Nigeria. *P. vivax* (14 cases) was acquired in Central America, SE Asia, east and west Africa. Of the 36 cases for which information on prophylaxis was available, only 9 (25%) reported taking prophylaxis.

MEASLES (1)
0.02/100,000 (U.S. 0.1/100,000)

This single case is the lowest number recorded in Maryland since records have been kept. The case was an international importation from Canada, so indigenous transmission of measles was interrupted for more than 12 months. The 5 year median for the period 1990-94 is 17 cases.



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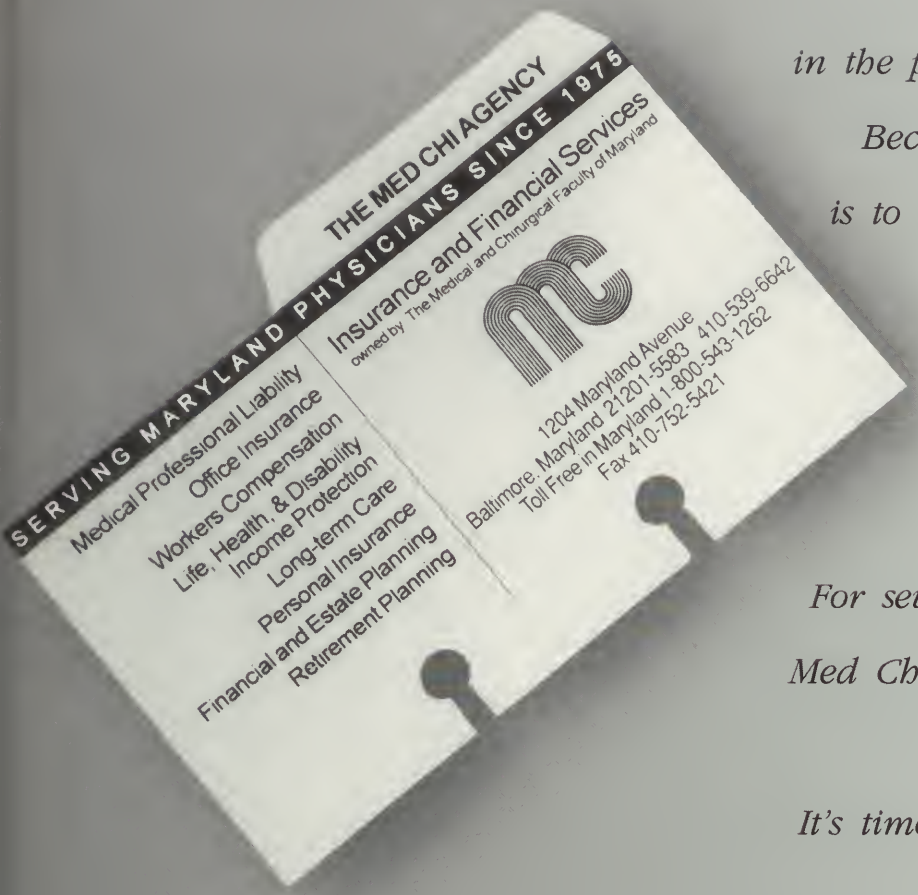
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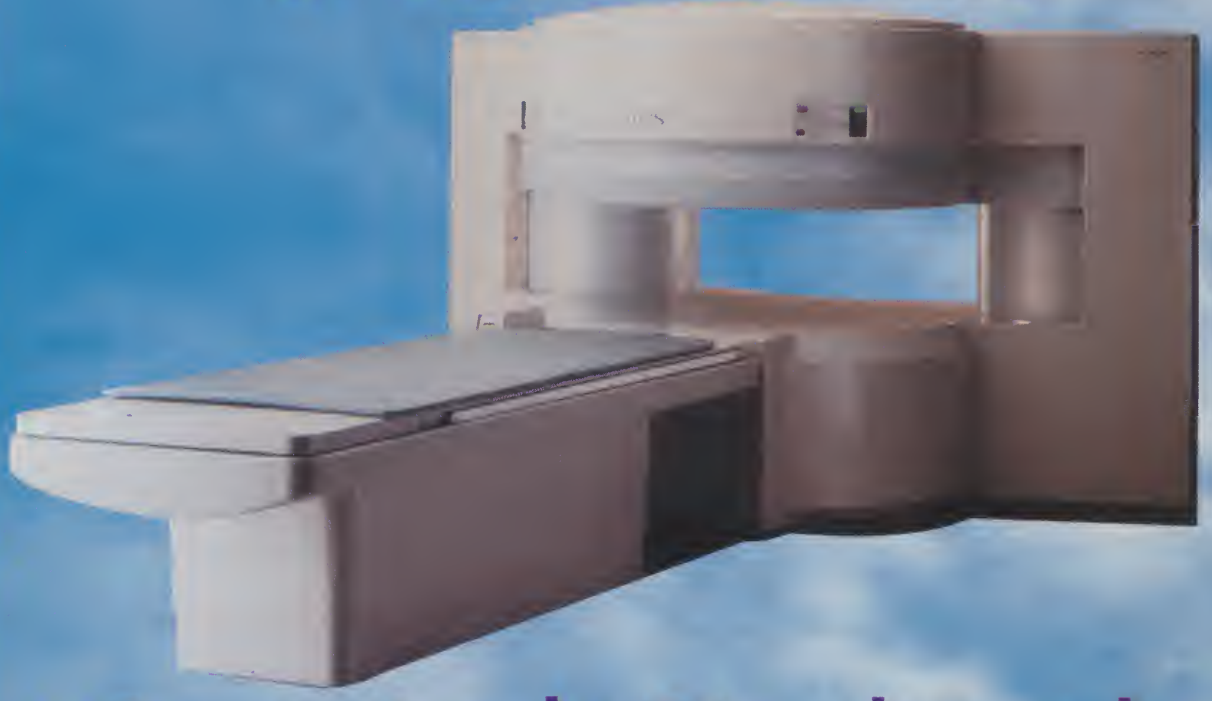


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A New Day -- A New Beginning
A New Journal

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Dear Colleague:

The medical profession and the practice of medicine continues to undergo rapid changes caused by technological advances, market forces, regulation, and managed care organizations. As physicians, we are constantly faced with new practice protocols, regulations, and ethical issues. Yet, the medical community is not alone in facing change. Med Chi's commitment to quality service mandates that we constantly look for ways to improve how we provide our membership with up-to-date, timely information concerning the changes facing the medical field.

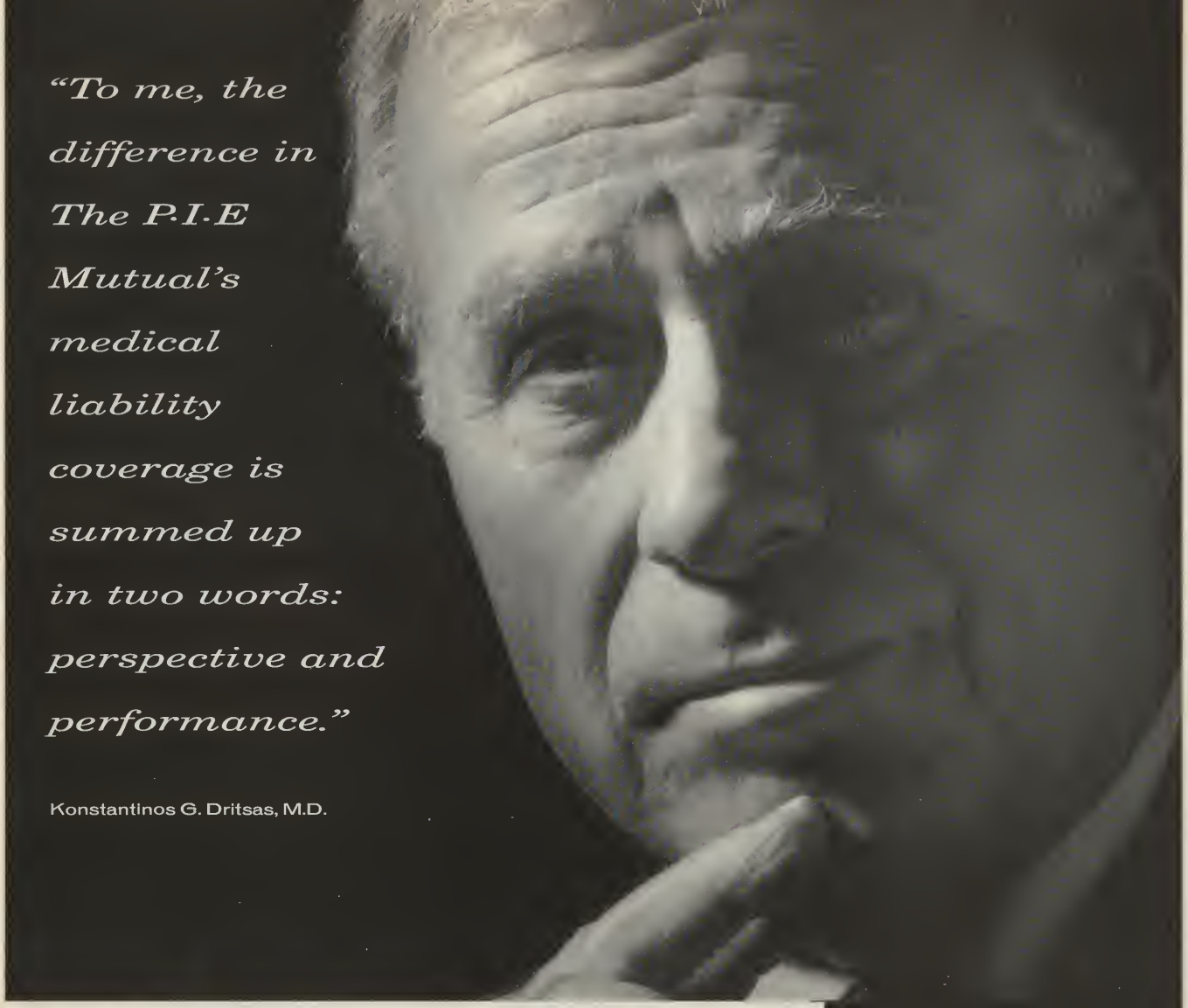
In an effort to keep the Med Chi membership informed of timely issues as they evolve, we have reformatted the *MMJ* to meet that goal. The new *MMJ* will report on issues that are taking place, as opposed to having taken place. The revised *MMJ* will feature a new section providing you with information on matters that are ongoing, fulfilling our goal to present you with breaking news and issues. For example, the issues that HCAC is facing currently rather than positions that have already been adopted. We also plan to keep you up-to-date on matters concerning our efforts regarding legislation. For instance, our attempts toward persuading legislators to take the correct action on such items as the physicians payment system, realizing that there is no current system, and that HCAC is still developing such a structure.

During these times of change we understand the importance of keeping our membership in touch with current issues as they evolve. With that in mind we encourage you to take advantage of the timely information we will be making available to you each month.The attempt of our reconstruction of the *MMJ* is to expand upon what is already an outstanding journal. We hope you like this new and improved version of the *MMJ*, and will give us your thoughts about it by completing and returning the FAX BACK Survey on page 745.

Sincerely,

Alex Azar, M.D.
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Maryland Medical Journal
SEPTEMBER 1996 VOL 45 NO 9

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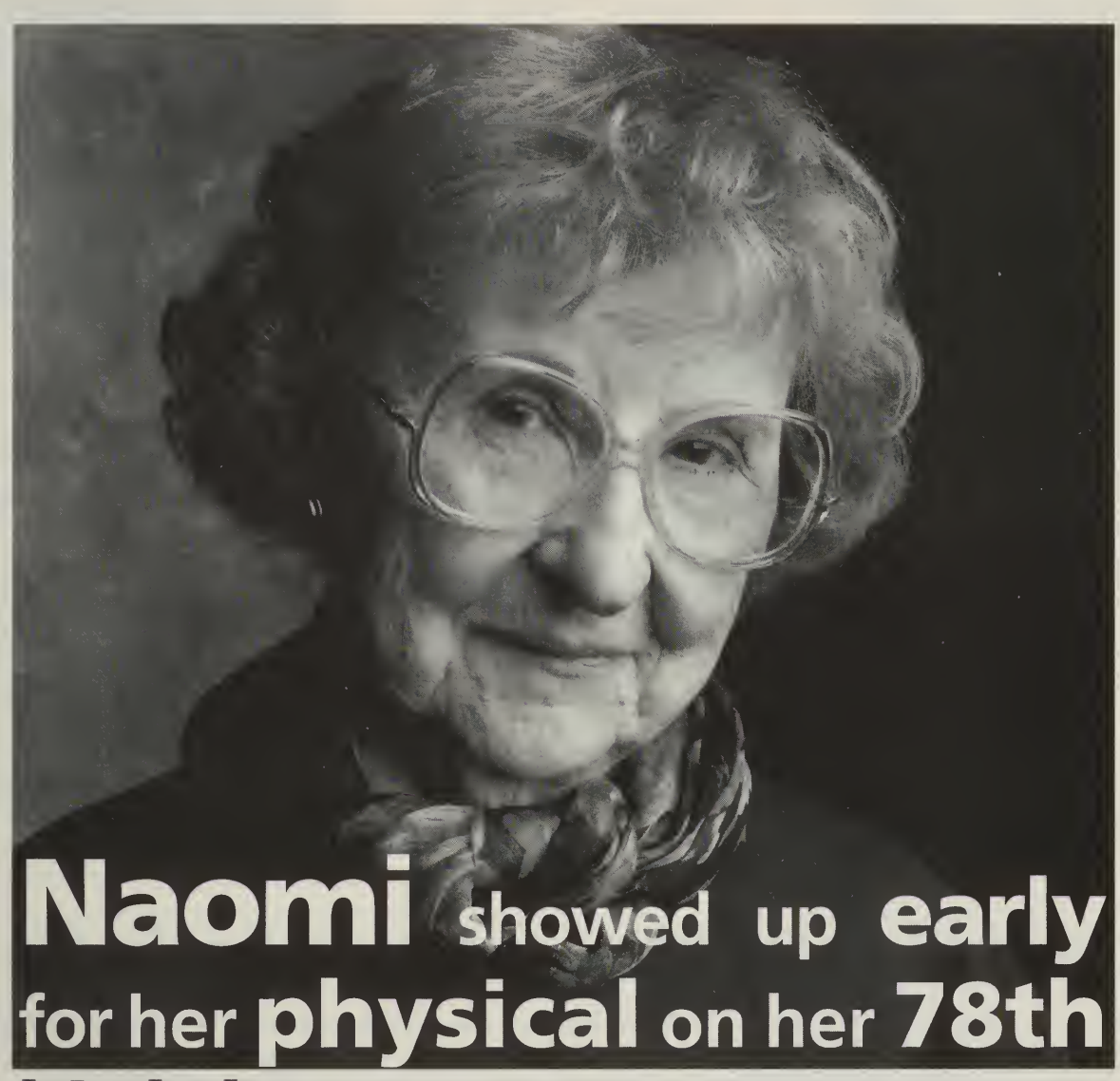
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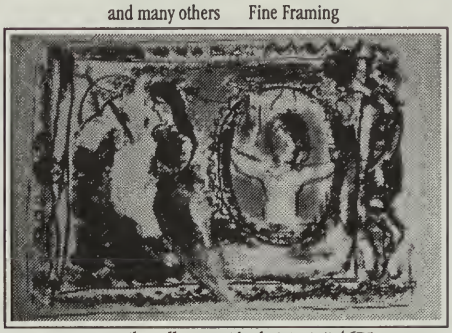
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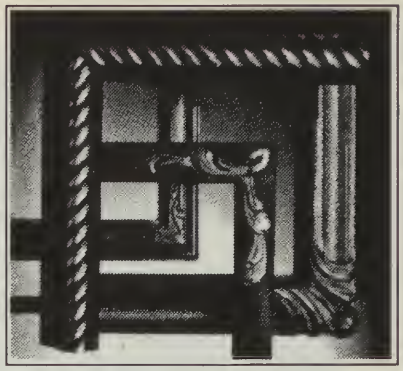
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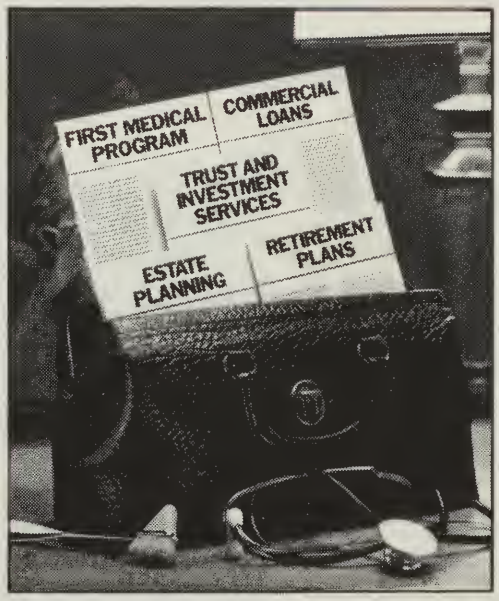


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MED CHI News
Maryland Medical Journal September 1996

News from the President

ALEX AZAR, M.D.

The most compelling and chilling issue raised this past month concerned the recent articles in *The Baltimore Sun* and *The Washington Post* relative to the July 12, 1996 letter from MAMSI by which physicians were notified of contract termination. The reason given was that affected physicians failed to meet performance standards for their specialty.

The following is a copy of the letter I wrote to the editor of *The Washington Post* concerning their article. A similar letter was also sent to the editor of *The Baltimore Sun* in response to their article. However, I do not intend to simply drop this matter with the writing of these letters, but rather, I will send this entire issue to our legislative leadership asking for their understanding and appropriate action.

In conclusion, I would like to quote a letter sent to me involving this issue, "...the financial bottom line has become more important than the patient's care..." His letter goes on to say "...I, like many of my colleagues, am frustrated that we are being coerced to deny care that our patients need and deserve." Yet, perhaps the most telling part of this letter was not included in the body of the letter, but in the closing, as it was signed *Dr. Anonymous (name withheld because of fear of retaliation.)*

July 25, 1996

Meg Greenfield
Editorial Page Editor
Washingtan Past
1150 15th St., N.W.
Washingtan, DC 20071

Dear Ms. Greenfield:

Your recent ortiele, "MAMSI gives ultimotum to doctors on referral limit (*Post* July 22, 1996)," clearly paints aut some af the serious problems that patients and physicians are facing in the managed care environment.

Medical decisions that affect patient's lives, which shauld be made jointly between a physician and patient based on mutual trust and understanding, may be adversely affected by third party payers ond insurance carriers.

The medical profession has repeatedly expressed concern that managed care organizations eventually would begin denying necessory medical care in order to make their bottom line look mare attractive ta their shareholders and potential investors. It appears that we have approached that time in Marylond.

The letter that MAMSI (M.D.I.P.A. and Optimum Choice) sent to its primary care praviders stating, "we are terminating the cantracts of physicians and affiliates who fail to meet the performance patterns for their specialty" is indeed chilling, especiolly when preceded by the following: ". . . effective immediately, all referrals from primary care physicians to specialists may be for only one visit." This is particularly disturbing considering recent reports of MAMSI's financiol weokness os well os possible sanctions against MAMSI by the federal Medicare program.

There is no daubt that utilization patterns vary considerobly among providers. A more reosonoble approach would have been for MAMSI to meet with its health care providers to develop reasonable cost effective, quality health core guidelines rather than its blanket condemnation of its primary care providers and its profound annaunced standard of care of only one visit to a specialist. While many of us know this position needs clarification, many in the health care industry believe MAMSI's letter reflected a "knee jerk" respanse to its sagging profits and stock price.

It is quite reveoling thot M.D.I.P.A.'s octuol medical expenses fell fram 80.3% in 1995 to 75.4% in 1996. Thus, in 1996, appraximately 25 cents out of every M.D.I.P.A. health care premium dollar went to profit and administrative fees, which is olmast twice the 10 ta 15% margin quated far mast nanprafit carriers in the country.

In an ero when most physicians have seen their reimbursement level fall 20 to 40%, there has been no comparable fall in the cost of premiums to patients. The exorbitant administrative and profit margins of many managed care organizotians are hard to justify. The Maryland Heolth Care Access and Cost Commission found that in 1993, approximately 40% of the health care dollor went for hospital care; 20% for physician care; and 40% for other core, such as drugs, dentists, nursing home care and administration. If one assumes that each of these subsets has a conservative 10 to 15% value for administrative ond profit function, then we can see haw much bureaucracy is built inta the system. This area requires further delineation and study.

The nearly $4 million compensatian package reportedly paid (*Post* Article, July 22) to MAMSI's

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CEO, George T. Jockum, lost year is mony times the $600,000 and $800,000 compensotion package reportedly received by the CEOs of Moryland BlueCross ond BlueShield ond Koiser Permonente respectively, both of which are nonprofit organizations.

When one examines how much money heolth insurance componies actuolly spend on the delivery of health care, it has been repeatedly shown that nonprafit companies usually spend about 90% of their premium dallar an actual health care delivery versus o 70 ta 80% figure for the for-profit entities.

The Medical and Chirurgical Faculty of Maryland is extremely concerned thot the letter from MAMSI will adversely affect the quolity of medical care delivered to its policyholders by denying an appropriate, timely referral to o specialist or intimidating a primary care provider to undertake core or corry out procedures that they lock the necessary training or expertise to perform. One of the first things a young doctar is taught is "first do no harm." A good doctor is one wha recagnizes his or her limitations ond asks for help. The letter from MAMSI definitely discaurages such actian, and will result in higher out-of-pocket costs by the patients who will hove to poy an additional affice visit deductible or co-pay for the added office visits.

When carriers such os MAMSI make such onerous demonds on their providers, they should then be held legally accountable for ony odverse outcome that results from o deloy or deniol of oppropriote referral. The Maryland legislature should develop appropriate laws that will hald such carriers responsible for their actions.

Moryland Senator Thomas Bromwell, Chairman of the Senate Finance Committee (*Post* Article "Compramising Heolth Core," June 16, 1996) stated that he plans to introduce legislation to require HMOs to inform their patients af various payment relationships. Perhaps he will be able to add this matter of limiting to one office visit, in his legislative initiative.

Traditionally, insurance companies have justified their profits by assuming risk; yet, in a managed care enviranment with total capitation, almost all the risk is passed on to the provider. It is time that the legislators recagnize this trend and develop legislative language to allow provider networks to market their services directly to consumers and eliminate the insuronce campany as a middle mon.

Last year, Med Chi and the managed care industry in Maryland, of which MAMSI is a part, developed an excellent roppart and dialague ta address problems of mutual concern to both parties. Unfortunately, MAMSI's ill-advised and ill-conceived letter may have seriously damaged thot relatianship. The Medical and Chirurgical Faculty strongly supparts the development of an independent nonprofit entity where such problems can be identified and addressed before they adversely affect the core of our potients. We urge MAMSI to reconsider its letter and begin open discussions with their providers ond their potients.

Sincerely,
Alex Azar, M.D.
President

News from the Chief Executive Officer

Angelo J. Troisi, F.A.C.H.E.

Cancer Prevention Program touring the state

The Cancer Prevention in Community Practice program is a manual reminder system and tool for creating a prevention team composed of you and your office staff. Program goals include: increased rates of early detection, prevention through positive patient behaviors, and increased office efficiency. This free program provides consultation for 6 months, materials for 8 months, and CME for physicians and contact hours for nurses. The program will be coming to your area based on the following schedule:

- Montgomery County – September 12 and 19, Holy Cross Hospital
- Upper Eastern Shore – October 9, Kent & Queen Anne's Hospital
- Lower Eastern Shore – October 31, Peninsula Regional Medical Center
- Frederick and Carroll counties – October 30, Frederick Memorial Hospital
- Allegany and Garrett counties – November (date and location to be confirmed)
- Harford and Cecil counties – November (date and location to be confirmed)
- Southern Maryland – November (date and location to be confirmed)

Schedule of later months will be provided. Please contact Carol Schwartz, M.P.H., project coordinator, at 800-492-1056 for registration and additional information.

Clinical Breast Examination Program schedules sessions for September

The purpose of the "Clinical Breast Examination Using the MammaCare Technique: A Practicum for Physicians" program is to teach and enhance a physician's clinical skills. This is accomplished by improving the physician's search pattern technique and sensitivity and specificity in detecting small, palpable lumps that would be indicative of breast cancer. The project targets primary care physicians, since postmenopausal women no longer seek their care from obstetricians and gynecologists and their attending physicians are normally primary care physicians. This free program will offer 2 CME Category 1 credit hours. The program will be coming to your area based on the following schedule:

- September 12: Washington County
- September 20: Worcester, Wicomico, and Somerset counties
- September 24: St. Mary's, Calvert, and Charles counties

To obtain additional information about the program coming to your area, please call Jade Leung, Med Chi's MammaCare specialist, at 410-539-0872 or 800-492-1056.

Three Med Chi representatives attend ACCME forum

Med Chi's CMERC sent three representatives to an Accreditation Council for Continuing Medical Education (ACCME) regional forum held on June 19, 1996, at the Medical Society of New Jersey. The purpose of the forum, one of several held throughout the country, was to provide state medical societies the opportunity to share ideas regarding a newly proposed system for accrediting sponsors of continuing medical education directly with Murray Kopelow, M.D., executive director of the ACCME.

In designing the new system, ACCME is working hard to assure

adequate input from state medical societies. In addition to the various regional forums, Dr. Kopelow held a town meeting during the AMA annual meeting in Chicago.

Key goals of the proposed system are to simplify the process of maintaining accreditation and to increase physicians' access to CME. The ACCME anticipates implementing changes gradually, beginning in 1997.

Citizens Advocacy Center rates Maryland in top ten

The *CA News and Views*, a publication of the Citizen Advocacy Center in Washington, D.C., identified Maryland as one of the top ten states "in handling substandard care cases" in its first quarter 1996 edition. *CA News and Views* noted that analysis of medical licensing board performance has raised questions about whether enough attention is being given to substandard care cases. The Citizen Action Center believes that a state deserves praise for setting its priorities correctly when it chooses to take on more serious substandard care cases, even when this results in an overall decline in the number of cases handled.

All substandard cases, by state law, are referred to Med Chi for peer review by appropriate specialists before action can be taken by the Maryland Board of Physician Quality Assurance (BPQA). Med Chi is pleased that, although Maryland did not attain a "top ten" score overall, it did in the portion of the BPQA program in which Med Chi plays a direct part, and which is recognized as being most critical to the overall goal of medical licensing for public protection.

AMA considers establishing physician performance assessment program

The Board of Trustees of the AMA has been considering the establishment of a physician performance assessment program. While maintaining that the caliber of medical care provided by the physicians of America is excellent, the board also acknowledges that there is always room for improvement in the quality of health care.

The accreditation of institutional health care providers, health care networks, and managed care organizations is currently under the aegis of the Joint Commission on Accreditation of Health care Organizations (JCAHO), the National Committee for Quality Assurance (NCQA), and URAC (formerly the Utilization Review Accreditation Commission). Since no equivalent process for physicians exists, Managed Care Organizations have stepped in to assume responsibility for "physician accreditation."

Recent research suggests support for AMA leadership and involvement in physician accreditation on a national basis. The Board of Trustees has taken the position that physicians involved in the clinical practice of medicine can best determine the appropriateness of that clinical practice. A single physician accreditation program would cut administrative costs; standardize clinical, economic, and patient satisfaction profiles; establish a "gold standard" physicians would strive to achieve; and provide physicians with comparative feedback on the clinical and nonclinical aspects of their performance. The Board of Trustees will develop a program to be gradually implemented over the next few years.

AMA announces availability of U.S. residency programs on the Internet

The AMA has announced the availability, through the World Wide Web, of extensive information on U.S. residency programs accredited by the Accreditation Council on Graduate Medical Education. Anyone with Internet access can connect to this new beta system, AMA FREIDA On-line (a test version of the Fellowship and Residency Electronic Interactive Database Access system), through the AMA's home page (http://www.ama-assn.org). Once connected, users can search through the list of 7,400 programs (as well as 200 combined specialty programs) using a variety of criteria to isolate the exact information they need from FREIDA's nearly 300 data elements.

Users can search all ACGME-accredited programs by program identifier, specialty/subspecialty, state/region, program size, and educational requirements, among other variables. All listings include program director name, address, and phone number, as well as program length and the number of positions offered. In addition, 80% of programs listed include expanded variables, such as program benefits (including compensation), resident-to-faculty ratio, work schedule, policies, and educational environment.

To try FREIDA, select http://www.ama-assn.org and proceed to the "Medical Science and Education" section. Be sure to complete the electronic evaluation form as this system is being tested, and the AMA needs user input to assess its use and usefulness. For more information or for technical questions, contact Rebecca Miller at 410-464-4680.

DHMH forms minority health care provider workgroup

A DHMH workgroup was formed earlier this year to address concerns of African-American and other minority health care providers caring for underserved patient populations, including problems in gaining access to managed care panels. A subcommittee has been formed to plan an educational program focusing on managed care readiness, to be held November 1 and 2, 1996, at a site to be determined. The planning committee includes representatives of Med Chi, the Baltimore City Health Department, the Baltimore City Medical Society, the Monumental Medical Society, Prudential Health Systems, Blue Cross/ Blue Shield, and Mid-Atlantic Association of Community Health Centers. For further information, call Marion Sjodin at the Health Department at 410-396-7223.

DHMH reduces Breast and Cervical Cancer Diagnosis and Treatment Program

Due to the overwhelming growth of Maryland's Breast and Cervical Cancer Diagnosis and Treatment Program in 1996, expenditures for the program will be reduced in 1997. The state-funded program currently pays for breast and cervical cancer diagnostic and treatment services for nonmedical assistance eligible, uninsured, or underinsured Maryland women who meet certain financial eligibility criteria and who are served by providers

participating in the program.

To limit expenditures, DHMH plans to propose limiting eligibility to patients being screened by local health departments only. The change would mean that patients screened through the HSCRC Coordinated Breast Cancer Screening Programs and patients referred by private providers would no longer be eligible to have their diagnostic and treatment costs paid for by the state's Diagnosis and Treatment program. Patients currently participating in the program who were diagnosed with breast cancer, cervical cancer in situ, or invasive cervical cancer prior to the change in the regulations would remain eligible for the program.

Proposed regulations are in the process of being developed. If no significant changes are made to these proposed regulations, the new regulations will take effect around December 1996.

Annual Maryland Conference set for September 25-27

The 8th Annual Maryland Conference, featuring "AIDS: A Challenge to Primary Care," will be held at the Baltimore Convention Center on September 25-27, 1996. Expert clinicians from community and university settings, research scientists, and community service providers will join forces to bring you the latest in HIV critical care. Plenaries, small lectures, panel discussions, and participatory workshops will cover practical issues on prevention and management of HIV infection and its complications in men, women, and children.

The program has been approved for 12 credit hours in Category 1 of the Physicians Recognition Award of the AMA. For information, please call the conference coordinator at 410-679-

Participants needed for low back pain study

The University of Maryland Medical Center seeks people between the ages of 18 and 60 who have been suffering from chronic lower back pain participate in a 10-week study of different relaxation methods including meditation, breathing exercises, Qi Gong, and other mind/body techniques and strategies to potentially relieve lower back pain. For more information, call 410-448-6607.

AMA rejects physician-assisted suicide

The AMA has taken a very strong stance against physician-assisted suicide. Please take a moment to read the interview (pages 743 and 744) with Nancy Dickey, M.D., AMA board chair, in which she expresses her thoughts and concerns on the subject.

News from the AMA Delegation

George S. Malouf, Sr., M.D., Chairperson

AMA delegation report

As reported in the August issue of the *MMJ,* all four of the Maryland submitted resolutions were adopted by the AMA and referred for action by the AMA Board of Trustees. These included:

- Resolution 213: patient data collection
- Resolution 304: retraining and relocating physicians
- Resolution 504: dioxin and medical waste incineration
- Resolution 708: collective bargaining

We are proud of the work of the physicians of Maryland.

Physician-assisted suicide (Board Report 59)

In a nearly unanimous vote, the AMA reaffirmed its opposition to physician-assisted suicide. In addition, it called for comprehensive physician education in caring for patients at the end of life. The AMA's position is grounded in ethical policy set by its Council on Ethical and Judicial Affairs (CEJA). CEJA authors and continuously maintains the AMA's Code of Medical Ethics, which has protected the patients of America for nearly 150 years.

Mandatory HIV testing of pregnant women (Resolution 425)

Relying heavily on statistics showing that treating HIV-positive women during pregnancy reduces by two thirds their risk of infecting their unborn children, the AMA endorsed mandatory testing and appropriate counseling of all pregnant women and newborns for HIV.

Evidence-based principles of discharge and discharge criteria (CSA Report 4)

The introduction of drive-through deliveries made the country stand up and take notice of changes in the medical marketplace that have patients concerned that their insurance companies may be putting financial considerations before quality of care. The AMA passed a report that establishes evidence-based criteria for determining when patients can safely be discharged from the hospital. The criteria puts patients and physicians back in the driver's seat, allowing them to make medical decisions together without third-party interference.

We in Maryland were especially pleased with the adoption of this report from the Council on Scientific Affairs because a primary portion of the report was accomplished by Michael A. Williams, M.D., a neurologist at The Johns Hopkins Hospital and a member of the AMA Council on Scientific Affairs. (If you would

like a copy of the complete report, please call the Med Chi Library.)

Disclosure of health plan limitations on patient choice of physicians (Resolution 115)

The AMA passed a resolution directing the AMA in implementing its patient protection legislative initiative to pursue the position that every health plan should include a bold type, front-page summary explicitly setting forth any plan limitations in choice of primary care physician, or access to specialists, in its marketing materials and written policies provided to members. The summary will also be required to contain easily understandable information on how physicians will be paid by the plan. The AMA believes making this information available to patients will make it easier for prospective health plan members to evaluate the health care services available under the plan and will lead to better informed patients.

Fatigue, sleep disorders, and motor vehicle crashes (CSA Report 1)

America's doctors are taking the lead against what some call America's "hidden nightmare." A report passed by the AMA indicates that the economic, medical, and public health costs of sleep-related problems are ignored. This is particularly alarming because drowsiness and fatigue are known to be deadly factors in work and motor vehicle accidents. Every year, there are more than one million motor vehicle accidents attributable to lapses in driver awareness. The AMA report calls for increased public education about the link between sleep disorders, sleep deprivation and fatigue and accidents. While drowsiness and fatigue affect all drivers, they are particularly dangerous for truck drivers and people who work nontraditional work schedules. The AMA also called for tougher federal enforcement of existing regulations on consecutive work hours.

Hard liquor advertising (Resolution 432)

In the wake of a new hard liquor advertising campaign by Seagram, the AMA voiced its strong exception by passing new policy calling for an immediate federal ban on advertising hard liquor products on commercial television. This is the latest in a long list of established AMA policies supporting federal legislation restricting advertising and promotion of alcoholic beverages. The AMA's policies, in part, induced the liquor industry's recently rescinded voluntary ban.

Assurance of public health aboard cruise ships (Resolution 429)

The AMA passed a policy calling for the immediate development of standards for providing medical care for passengers aboard cruise ships entering or leaving the United States. Currently, there is no regulation or credentialing of cruise ship physicians or onboard medical care. The AMA wants to see assurances that usual and customary public health and medical practices are available on ships that are not of U.S. Registry.

Domestic violence (Resolution 426)

Does mandatory police reporting of domestic violence put victims in greater danger than allowing them to choose to "press charges"? This is a concern of many victim advocates. The AMA addressed the issue with a call for the Association to evaluate the desirability of a uniform national standard for prosecuting domestic violence cases and will work with victim advocacy groups to assess the safety and effectiveness of current mandatory reporting policies.

Female genital mutilation (Resolution 513)

The AMA passed policy condemning the practice of female genital mutilation (FGM). Defining the procedure as "a form of child abuse," the AMA resolved to work with the U.S. Department of Health and Human Services (DHHS) to make FGM a "reportable condition," which would require that known incidents of the procedure would be reported to state health departments and to the Centers for Disease Control and Prevention (CDC). In addition, the AMA resolved to work with DHHS to develop an educational program to provide culturally sensitive counseling to help immigrant communities understand the grave health risks associated with FGM, and to discourage young girls and their families from having the procedure performed.

Tobacco holdings (Board Report 49)

As an extension of its April 24 call for mutual funds to divest of any tobacco holdings, the AMA called on health and life insurers and HMOs to do the same. The call for tobacco-free investments will be an annual campaign to provide health advocates with a method to ensure their financial investments do not profit from or support the tobacco industry.

Regulation of tattoo artists and facilities: *The Rodman Resolution* (Resolution 506)

The AMA called for regulation of tattoo artists and facilities. The age-old activity of tattooing is back in vogue, particularly among youngsters. The AMA passed the policy in response to concern over serious risks of bacterial or viral infection and allergic reactions in the application of tattoos. The AMA wants states to regulate tattoo artists and tattoo facilities to ensure adequate procedures to protect public health. In addition, the new AMA policy calls on physicians to report any adverse reactions to tattoos in their patients to the FDA MedWatch program. Currently, tattooing parlors are not uniformly regulated in this country.

Ultimate fighting (Resolution 405)

The AMA voted overwhelmingly to oppose ultimate or extreme fighting contests, which promoters brazenly advertise as the "bloodiest, most barbaric show in history." The AMA passed new policy that will strongly urge states that have not yet banned this activity to pass a law doing so to protect the lives of participants. The AMA also plans to study the feasibility of federal or state restrictions on the broadcasting of these events.

Other highlights discussed by the House of Delegates

War on drugs: Speech by the new White House Director of the Office of National Drug Control Policy, General Barry McCaffrey (Retired), who was very optimistic about the chances of being successful in the future attempts to stop the violation of drugs.

Prostate cancer screening: (For early detection of prostate cancer) addressed a fairly controversial issue regarding the wisdom of screening for prostate cancer in the absence of evidence that therapy is efficacious.

Amended report on the federation study: This represents a major change in the AMA structure. It indicated the desire to be more inclusive, efficient, and responsive. Compromise on several other resolutions also indicated the desire of delegates to be more cooperative and compromising.

Public health issues: Resolutions entertained included a list of innovative physicians participatory programs for care of the medically indigent and under-served; Campaign Against Family Violence; publication of research funded by the tobacco industry; AMA's call for divestment of tobacco stocks and mutual fund holdings; affordable prescription drugs for the elderly; and AMA promotion of free clinics.

Two other issues which we in Maryland have already addressed to the delight of our physicians are restriction of gag clauses and point-of-service provisions. Luckily, we in Maryland were able to pass both of these issues in the past year or two.

The delegation adopted the position of the chairperson, who appointed three physicians (Allan D. Jensen, M.D., coordinator, Joseph Snyder, M.D., and Michael Williams, M.D.) to review and identify AMA highlights for a report to Maryland physicians. This report includes the recommendations of this group.

A complete report of the highlights from AMA A-96 will be available at the semiannual meeting in September. If you need additional information on any of these issues, please contact Angelo J. Troisi, CEO.



News from Annapolis

Joseph A. Schwartz, III, Esq., Med Chi lobbyist

Med Chi experienced a successful 1996 legislative session with the passage of several key pieces of legislation that affect physician practice and will take effect as of October 1, 1996.

Gag rules prohibited

A carrier may not prohibit a health care provider from discussing or communicating to an enrollee, public official, subscriber, or other person information that is necessary or appropriate for the delivery of health care services, including communications relating to treatment alternatives; communications necessary or appropriate to maintain the provider-patient relationship while the patient is under the provider's care; communications regarding an enrollee's or subscriber's right to appeal coverage determinations of a carrier with which the provider or the enrollee or subscriber do not agree; and opinions and the basis of an opinion regarding public policy issues.

Mandatory annual HMO disclosure of practice profile information

A practice profile is a summary, economic analysis, or other analysis of data concerning services rendered or utilized by a provider under contract with or employed by a health maintenance organization for the provision of health care services by the provider to enrollees or subscribers.

If an HMO uses a practice profile as a factor in its contract review to evaluate a provider's status on a provider panel, the HMO shall disclose at the commencement and renewal of the contract and, not more than annually, upon the request of the provider a description of the criteria used to compile the practice profile concerning the provider and the manner in which the practice profile is used to evaluate the provider.

An HMO may not terminate a provider contract or provider's employment with the HMO on the basis of a practice profile without first informing the provider of the findings of the practice profile and the provider-specific data underlying those findings.

Certain indemnification language in contracts prohibited

A nonprofit health service plan, hospital, major medical insurer, group, or blanket health insurer may not by contract or in any other manner require a health care provider to indemnify the plan or hold the plan harmless from a coverage decision or negligent act.

BPQA may use agreements for corrective action as a mechanism for discipline

If the Board of Physician Quality Assurance determines that an agreement for corrective action is warranted and patient safety is not an issue, the BPQA shall notify the licensee of the identified deficiencies and enter into an agreement for corrective action, which may not be made public and which shall not be considered a disciplinary action.

The BPQA shall subsequently evaluate the licensee and shall terminate the corrective action if the BPQA is satisfied that the licensee is in compliance with the agreement for corrective action and has corrected the deficiencies; or pursue disciplinary action under §14-404 of this subtitle if the deficiencies persist or the licensee has failed to comply with the agreement for corrective action.

In-network Ob/Gyn physicians may provide medically necessary and routine care without the requirement that the woman first visit a primary care provider

If the obstetrician/gynecologist chooses not to be a primary care physician, the HMO shall permit a woman to receive gynecologic care from an in-network obstetrician/gynecologist without requiring the woman to first visit a primary care provider provided that the care is medically necessary, including, but not limited to, care that is routine; following each visit for gynecologic care, the obstetrician/gynecologist communicates with the woman's primary care physician concerning any diagnosis or treatment rendered; and the obstetrician/gynecologist confers with the primary care physician before performing any diagnostic procedure that is not routine gynecologic care rendered during an annual visit.

The above is not a complete listing of legislation that will take effect October 1, 1996. If you need information on a particular bill, contact the Med Chi legislative office.

Maryland Regulatory News

Michael Preston, Med Chi general counsel

BPQA: New licensure rules to give CME credit for medical society committee work

Physicians who offer their time in Med Chi or other medical society peer review, physician rehabilitation, or focused education programs will receive category 1 CME credit under proposed changes to the BPQA licensure rules. The proposed changes also broaden the requirements for "accredited training programs" and would implement a variety of technical amendments.

The amount of CME credit would depend on the nature of the service. Up to 10 hours over a 2-year period would be allowed for service that does not involve reviewing medical records or serving as a committee chairperson (5 hours of service would equal 1 hour of CME category 1 credit). If the service involves reviewing medical records, 1 hour of credit is granted for each patient record reviewed, with no limit on the number of hours that may be earned for this type of service. A physician who serves as an intervenor, assessor, or monitor in the physician rehabilitation program, or who serves as a committee chairperson for any of the three types of committees will be credited with 10 hours of CME category 1 credit if the service lasted the entire length of a license renewal period.

The proposed rules do not clearly allow CME credit for service on a committee of the medical society other than the faculty, although it appears that they are intended to do so. Med Chi has requested clarification on this point to be sure that credit is allowed for service on committees of Med Chi components or specialty societies.

> *Physicians who offer their time in Med Chi or other medical society peer review, physician rehabilitation, or focused education programs will receive category 1 CME credit under proposed changes to the BPQA licensure rules.*

Otherwise, the rules elaborate the requirements for noncertified postgraduate clinical medical education programs by specifying that such programs must be in a specialty area that is not accredited by the ACGME but meets all its requirements for accreditation; be directed by a physician who has an active Maryland license; be offered with ACGME accredited programs; and be taught at a JCAHO accredited hospital.

In addition, the rules contain provisions to recognize that some foreign medical schools do not offer medical degrees; to clarify examination requirements for English language proficiency; to eliminate requirements that applicants for licensure disclose any history of treatment for alcohol or other substance abuse; and to limit disclosure of medical malpractice information to claims within five years prior to the application.

BPQA: Regulations on delegating duties to unlicensed, unregistered assistants

After years on the drawing board, proposed regulations have been issued by the BPQA governing physicians' delegation of medical duties to office personnel who are not licensed or registered by any State health occupations board. The regulations are subject to a public comment period and will not become effective until final action is taken by the BPQA, probably later this year.

Until now, it has been the physician's judgment, backed by the knowledge that the physician is responsible, which has determined whether delegation of a medical task to unlicensed or unregistered office employees requires a particular level of supervision. Under the proposed rules, the physician is still responsible, but new limits will affect, and in some cases prohibit, office practices that heretofore have been

performed free of regulatory control.

The regulations restate long-standing notions that physicians are responsible for assessing the training and competence of unlicensed assistants and for supervising and directing their actions. Likewise, the proposed rules restate existing prohibitions against delegating to unlicensed personnel duties that require a license. But, if adopted, the regulations will require certain levels of physician supervision for specified categories of medical tasks and will prohibit delegation of other categories of tasks to unlicensed workers. They also identify certain types of tasks that require no particular level of supervision.

The regulations distinguish two levels of supervision, and recite certain types of duties to which each level applies. The first, *on site supervision*, means that the physician is "physically present in the treatment facility," but not necessarily in the treatment area with the patient or even in the same suite during the assistant's delegated work. The term "treatment facility" is not defined, so this level of supervision could allow the physician to be in the building or on the same medical campus as the patient, but not at home or at lunch off site.

The second level, *direct supervision*, means that the physician is in the treatment area with the patient and the assistant or is "on the premises of the health care entity and within distance to be verbally summoned and immediately available for any required assistance." Although the terms *health care entity* and *verbally summoned* are not defined, the rule probably would require the physician to be in the same office or suite so as to be reachable by voice summons, and not by telephone or beeper, for example. Examples of the types of duties for which each level of supervision is required are listed in the regulations.

No particular level of supervision is required for patient preparation for examination; patient history and interview; collecting and processing specimens "such as performing phlebotomy and inoculating culture media"; selected tests "such as pregnancy testing, urinalysis, microbiology (streptococcal testing, cultures, gram staining, and susceptibility testing), tuberculosis skin testing (PPD testing), electrocardiography, pulmonary function tests, and vision and hearing testing"; transmitting prescriptions to a pharmacy; and providing sample packets of medication to patients "as directed by the supervision physician."

Types of duties that can be delegated to nonlicensed personnel only with "on site supervision"are preparation and administration of oral drugs; preparation and administration of injections limited to intradermal, subcutaneous, and intramuscular (deltoid, gluteal, vastus lateralis), excluding PPD testing; and establishing an IV line.

"Direct supervision" of the physician is required to delegate to unlicensed staff the preparation or injection of "non-radiographic diagnostic materials for any purpose other than radiation therapy, nuclear imaging, or radio nuclide therapy."

...the regulations will require certain levels of physician supervision for specified categories of medical tasks and will prohibit delegation of other categories of tasks to unlicensed workers.

Perhaps most importantly, unlicensed personnel may not prepare or inject intravenous medications, including any radiographic contrast media or dye, or radioisotopic materials; perform surgical procedures, "including suturing and debridement"; conduct physical examinations; administer any form of anesthetic agent other than topical anesthetics; independently initiate any form of treatment except CPR; and administer physical therapy.

The preceding lists of examples are stated in the regulations to be nonexclusive, in that the rules provide that the indicated level of supervision is required for duties "including, but not limited to" the listed items. This creates an element of uncertainty concerning the potential scope of these regulations.

The proposed regulations emerged from the BPQA after extensive review and comment by Med Chi and various other medical societies, in a process that started in 1993. Specific legislative authority to issue regulations in this area has existed for years, but has not been acted upon fully until now. A previous effort to draft such regulations was made but abandoned by the Commission on Medical Discipline, the BPQA's predecessor.

BPQA's Practice of Medicine Committee received voluminous correspondence from physicians variously objecting to the regulations generally or to specific provisions, and the draft regulations went through multiple revisions before the full Board adopted the current draft in June. The extensive prepublication comment on the drafts may diminish the impact of comments directed to the current published version. For more information, or for copies of the regulations, contact Michael Preston, Med Chi general counsel.

BPQA: Physician advertising regulations for self-described specialists to be revised

The BPQA is amending its rules on physician advertising to accommodate changes in the law regarding physician self-identification as a specialist and also to streamline the advertising regulations.

Responding to 1996 legislation repealing restrictions on a physician's self-identification as a specialist unless recognized as such by the BPQA, the Board is revising its rules on physician advertising as an alternative means of regulating how a physician represents him- or herself to the public.

Amendments adopted by the Board in August will include a prohibition against advertisements stating or implying that a physician has received formal recognition as a specialist in a field of medicine unless: (1) the physician is certified by the American Board of Medical Specialists, the American Osteopathic Association, or the physician was recognized as a specialist by the BPQA prior to October 1, 1996; (2) the physician has completed an accredited training program in the field; or (3) the

physician has focused the majority of his or her practice in the field for a significant period of time.

The amendments also would eliminate current regulations that specify the types of information a physician can place in directory ads, such as the Yellow Pages. Instead, the rules will treat all forms of advertising equally and will contain only a list of the types of information a physician cannot place in an ad.

Other proposed amendments to the list of prohibited information are provisions that an ad cannot contain statements that cannot be verified by the Board for accuracy and a restriction on advertising a price for a service which does not accurately reflect all probable related charges.

The regulations will not become effective until the Board gives them final approval after a public comment period. The Board is targeting final approval in October, for the current regulations will be repealed as of October 1, 1996, along with the statute that authorizes them.

BPQA: Ruling deferred on patient access to IME records

Is a physician who performs an independent medical examination (IME) of a person for an insurance company practicing medicine? Is the person who is the subject of the IME entitled to records and reports resulting from the examination? These questions were taken together by the BPQA's Practice of Medicine Committee, which answered: yes and yes. But at the request of Med Chi, the Committee's decision has not yet resulted in Board policy on the issue, pending possible legislation to clarify the pertinent law.

Controversy has emerged, mainly among lawyers representing personal injury litigants, over whether the patient is entitled to records from an IME. Both the Board and Med Chi historically have taken the position that the patient is not entitled to the records because no physician-patient relationship normally arises from the IME.

Stating that because a physician who performs an IME is practicing medicine the patient is entitled to the records of the exam, the Committee decided in April to issue a declaratory ruling establishing BPQA policy to this effect and invited public comment. Med Chi pointed out that the fact that the physician may be practicing medicine in an IME does not answer the question whether the Medical Records Act requires disclosure of the record.

Noting that cogent legal arguments exist on both sides of the issue, Med Chi urged that the matter should be settled by either an amendment to the Medical Records Act or by regulation, but not by declaratory ruling on the part of the Board. The Committee agreed in June to defer issuing a declaratory ruling pending consideration of possible legislative change.

BPQA: New law to license out-of-state telemedicine practitioners proposed

While state law governs the licensure of physicians, state boundaries increasingly are irrelevant to the practice of medicine, which occurs across telephone, fax, and computer lines nationwide and worldwide. In a move that may accommodate the trend toward what is known as telemedicine, the BPQA has issued draft legislation that would allow physicians in other states to engage in medical practice in Maryland across the phone lines under limited circumstances.

In a move...toward...telemedicine, the BPQA has issued draft legislation that would allow physicians in other states to engage in medical practice in Maryland across the phone lines under limited circumstances.

The BPQA submitted draft legislation to DHMH in late July that will probably appear among DHMH-sponsored bills in the 1997 legislative session. It will create a special purpose category of license for the practice of medicine across state lines, but the license is limited to occasions in which the patient is under the care of an actively licensed, practicing Maryland primary care physician or appropriate specialist, who makes the referral to the physician located outside Maryland. Currently, there is no regulation of practitioners who are located out-of-state and whose patients are in the state.

HCACC: Commission to seek one year delay for start of payment system

Faced with firm opposition from insurers and widespread confusion in the health care provider community about the nature, purpose, and to an extent the very existence of the health care provider payment system law, the Health Care Access and Cost Commission voted to delay implementation of the payment system for one year. It must obtain approval from the legislature to push back the start date for the system until January 1, 1998.

Creation of a comprehensive payment system for all Maryland health care providers and insurers is one of several key initiatives in the 1993 Health Care Reform Act, commonly known as HB 1359. The law directs HCACC to implement a uniform system for all health care practitioner reimbursement by January 1, 1997, under which reimbursement is to be determined through the application of three numeric factors: one representing the amount of resources necessary to provide the service; one representing the relative value of the service compared to all other health care services; and a one representing a "conversion modifier."

Although the scheme sounds identical to the Resource Based Relative Value Scale (RBRVS) used by Medicare, HB1359 only directed HCACC "to consider" the Medicare RBRVS system and did not mandate its use.

In addition to creating a uniform payment system, however, the law gives HCACC price control power by authorizing it to set "annual adjustment goals," or aggregate budgets, for the cost of health care services rendered by any specialty group. If the total reimbursement during any 12-month period for any specialty group exceeds the budget set for that specialty group by HCACC, HCACC is directed to work to reduce the overall reimbursement to that group, first by persuasion or "jaw-boning" and,

failing that, by capping the practitioners' prices. The actual mechanism of price control would be action to cap the allowable "conversion modifier" that could be used by members of the affected specialty group.

Other features of HB 1359 include insurance reforms for small employer groups, creation of the Maryland Health Care Data Base, development of electronic claims clearinghouses and related measures to facilitate electronic claims processing, creation of an HMO quality evaluation and reporting system, and a task force for development of practice parameters. HCACC is charged with implementing all measures, and it has pressed them forward more or less simultaneously, usually with advice from a special task force or advisory committee.

Most of HCACC's activity on the various initiatives has proceeded with a fairly high level of attention and involvement on the part of the insurance industry and provider community. Indeed, the small group market reforms and HMO quality efforts generally have been favorably received, while controversy about patient privacy issues related to the HCACC data base project erupted into a major legislative fight this year between Med Chi and HCACC.

But because of its arcane language and concepts and HCACC's reliance on an outside economic consultant to provide the heavy analysis, the payment system was a sleeper that sprang to life in May, when the consultant Center for Health Economics Research (CHER) presented its major recommendations and when HCACC executive director John Colmers stated to HCACC's Payment System Advisory Committee that the goal was January 1, 1997, for adopting regulations to implement the system.

Among CHER's major recommendations were proposals to adopt the Medicare RBRVS system as the payment system's basic methodology; to require all insurers to adopt one statewide conversion factor, allowing the conversion factor to vary by product line; to require all practitioners to post one conversion factor; to require payers and practitioners to make their conversion factors public; and to impose a minimum conversion factor, or floor, of $35 and a ceiling of $65.

The recommendation to adopt Medicare RBRVS was widely expected and, although more controversial, so was the recommendation urging one conversion factor. But the notion of a floor and ceiling for conversion factors was completely unexpected and offered the prospect that the payment system would be not only a means of capping reimbursement, but a way to keep reimbursement from being pushed too low.

The Payment System Advisory Committee held a public hearing on June 4, 1996, to receive comments on CHER's major recommendations. Because the payment system features of HB 1359 were added to the bill virtually at the end of the 1993 legislative session, no public hearing was ever held concerning it. The June hearing was the first opportunity for affected parties to speak out about the system.

Participants did not limit their views to CHER's proposals. Little enthusiasm was expressed for the system's basic concepts. The insurance industry, led by Blue Cross/Blue Shield of Maryland, opposed the system outright, while Med Chi expressed misgivings about price control generally and doubt about HCACC's authority under HB 1359 to implement the potentially popular conversion factor floor. At press time, the Payment System Advisory Committee was still deliberating over CHER's main recommendations and appeared ready to adopt most of them, except the notion of the floor and ceiling.

DHMH: Medicaid 1115 waiver regulations in process; comments offered

Continuing its breakneck pace for writing regulations to implement a full conversion to managed care for the Medicaid population by January 1, 1997, DHMH has issued draft regulations and is considering public comments on them. The pace of the project is such that the actual draft was not available at press time.

Med Chi offered detailed comments on a variety of issues, including the proposed ratio of Medicaid patients to primary care providers, the definition of "medically necessary" service, and suggestions for implementing the "historical provider" provisions.

Under legislation passed in the 1996 General Assembly, DHMH submitted an application to the federal government for a waiver of federal Medicaid requirements to permit moving more than 200,000 Maryland Medicaid patients into managed care entities.

The full text of Med Chi's comments to DHMH Secretary Wasserman concerning the 1115 Medicaid Waiver regulations begins on page 746.

HRPC: Hospital mergers approved

At its April 1996 meeting, the Health Resources Planning Commission approved the merger of Sacred Heart and Memorial of Cumberland hospitals. At its June 1996 meeting, HRPC approved the mergers of Sinai Hospital with Levindale Geriatric Center; and Memorial Hospital of Easton with Dorchester General Hospital. George S. Malouf, Sr., M.D., HRPC chairperson, gave Med Chi the following statement:

"I do not see a downside to these mergers for physicians. The two horizontal mergers between hospitals are intended to assure the financial health of both institutions, eliminate duplication, and increase cooperation. The Sinai merger will affect continuity of care through vertical integration, particularly for gerontology patients. In all three mergers, the hospitals had worked extensively with the medical staffs to address practice issues. The medical staffs in most instances will have what amounts to reciprocal privileges at the member institutions, which will help assure patients' choice of physician and choice of hospital, although there are no immediate plans to merge the affected staffs.

"HRPC encourages mergers as one potential means to reduce the excess hospital capacity that exists in Maryland, keep health care costs at a reasonable level, and help improve access to services and quality of care in a particular geographic area.

"The benefits of hospital mergers include the survival of assets under increasing financial pressure, pooling of expertise and financial resources, and eliminating duplication of services such as billing, support services, and expensive medical technology.

"Most hospital mergers receive HRPC review, although it is not required in all situations. HRPC reviews mergers for overall impact on the health care system, without the full Certificate of Need approval process. By reviewing mergers in this way the Commission can watch for potential concerns of over-consolidation, such as monopoly situations, and at the same time protect access to important services where that may be a consideration.

"Creating these new efficiencies in the hospital industry will also help protect Maryland's waiver from the federal prospective payment system and the all-payer system that assures equity and access to hospital services for all people regardless of their insurance status.

"HRPC anticipates additional merger activity in various forms as the hospital industry continues to respond to changing financial pressures in the health care market from managed care plans, and to see the benefits of cooperation to serve a particular geographic area as these recent mergers do."

HRPC: Move of hospital operating rooms to freestanding facility approved

At its July 9, 1996, meeting, HRPC approved Suburban Hospital's request to move four of its outpatient operating rooms to a freestanding facility one mile from the hospital.



AMA News from Washington, D.C.

American Medical Association

Action Requested

Please contact your U.S. Representatives to indicate the critical need for passage of the following bills and ask for their support for these bills.

CLIA, H.R. 1386

The intent of CLIA was to legislate the quality of laboratory testing, but the result has been the added burdens of regulation through inspections, unnecessary documentation, and volumes of paperwork. Even if a physician personally takes a specimen from his or her patient, carries it across the room to a microscope, and examines it immediately, the regulations require extensive documentation and paperwork, including specimen labeling, a laboratory log, signed test requisitions and reports, procedure manuals, records of personnel supervision, and documentation of on-the-job-training. Tests that could have been done in 30 minutes in the doctor's office are now referred to an outside lab that may take days to get results. For example, CLIA sets up complex rules for the physician office use of the same cholesterol test that is available at any drug store for home use.

The CLIA language in Rep. Bill Archer's legislation (H.R. 1386) would exempt physician office labs, but would not alter the current regulation of PAP smears. No data existed at the time CLIA was amended in 1988, or now, that demonstrate that there is a problem with the quality of physician office laboratory testing.

Antitrust Relief, H.R. 2925

Limited antitrust reforms proposed in H.R. 2925 would permit legitimate physician networks to form and compete in the marketplace. One of the fundamental principles on which our economy is based is that competition leads to increased efficiency, higher quality, and lower costs. That principle has been proven in recent years in the health care industry, as provider integration and increased competition have resulted in lower costs to employers and patients. Provider-sponsored networks are an important part of the competitive environment in the private sector. However, providers are often hindered in their efforts to form groups and other collaborative ventures to enable themselves to negotiate with these employers efficiently. The antitrust enforcement policy of the Justice Department and the Federal Trade Commission unduly restricts the size and structure of provider groups.

H.R. 2925 would not exempt provider networks, as defined by the legislation, from the antitrust laws. The bill merely applies the well-established rule of reason test to the conduct of legitimate provider networks, which means the networks that engage in anticompetitive conduct in any market would be in violation of the antitrust laws and could be prosecuted to the full extent of the law. Physicians and other providers who form networks would not, however, be automatically subject to the *per se* rule with its criminal penalties if their network meets the substantive criteria of the legislation.

MED CHI ON THE WEB

The Medical and Chirurgical Faculty of Maryland's Home page is at

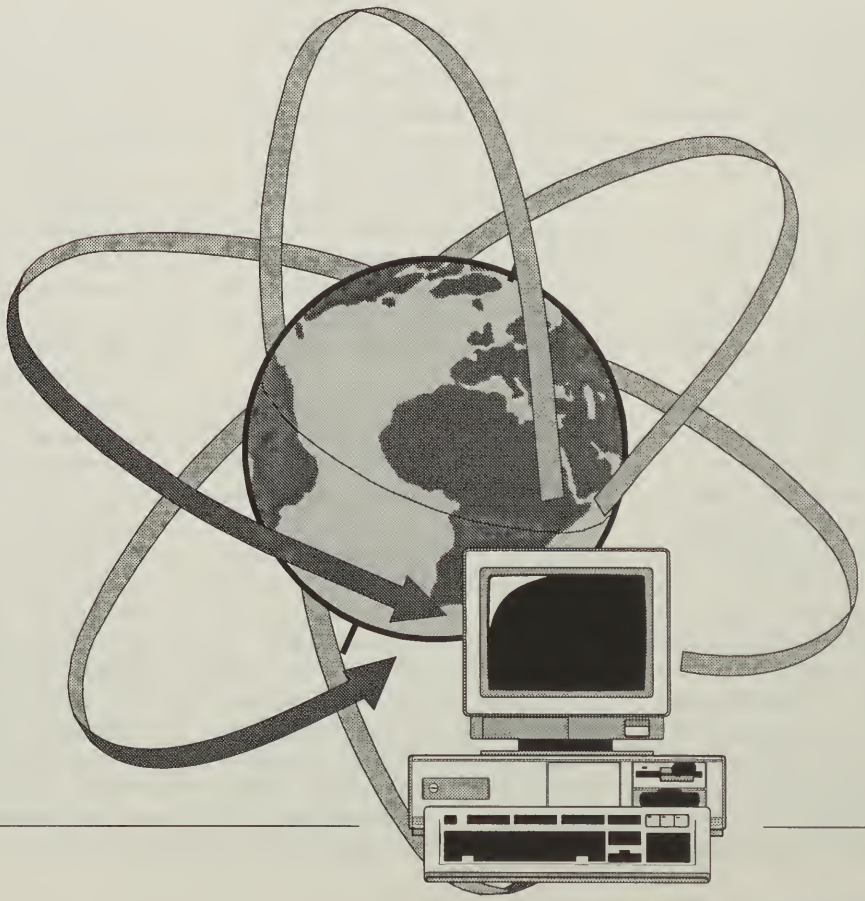
http://www.access.digex.net/~medchi/index.html

The site is still undergoing construction, and we welcome your comments. Just click on our e-mail account link and send us your thoughts. Or, if you don't have Web access but do have an e-mail account, we can be reached at

medchi@access.digex.net

The site contains up-to-date information on Med Chi activities including

- cancer screening CME courses
- information from the component medical societies
- links to the AMA and other medical sites
- benefits of membership in Med Chi
- library services



News from the Alliance

Mildred Taylor, Alliance president

Special Alliance meeting

On Saturday, September 7, 1996, from 11:30 am to 3:00 pm, there will be a meeting at Fager's Island Restaurant (201 60th Street and the bay) in Ocean City. Following a brief business meeting, there will be a delicious luncheon and spectacular fashion show presented by the well-known boutique Head Over Heels. All members and friends are welcome. For further details, please contact Jo Ann Troisi, 410-539-0872, ext. 346.

Report of the Alliance to the Harford County Medical Society

This year, the Alliance to the Harford County Medical Society chose to support the American Cancer Society's Relay for Life, a 24-hour team event to raise funds to fight cancer, raise cancer awareness in the community, and honor cancer survivors. Teams of 8 to 12 people from corporations, hospitals, neighborhoods, civic groups, and families take turns in the relay. One team member at a time walks or runs around the track in 30-minute shifts. Teams pledge to have one team member on the track at all times for 24 hours. Each team member is asked to raise a minimum of $100 from donors before the event; teams are asked to raise at least $1000. During the event, team members create a party atmosphere by camping out and enjoying entertainment, food, games, and camaraderie.

Because cancer touches everyone in some way, the Relay for Life is an opportunity for the entire community to get involved. Today, one of two patients diagnosed with cancer survives. Highlights of the Relay for Life include the opening ceremonies, the Survivors' First Lap, and the Luminary Ceremony to honor survivors and remember those who lost their battle with cancer.

The Alliance to the Harford County Medical Society formed a team of Alliance members and raised $3664. Alliance member Bea Sadowsky was team captain, as well as chairperson of the Survivors Committee. Alliance member Susan Seidenberg was team recruitment chairperson for the event. Alliance team members Karen Carag, Colleen Protzko, Christine Hatem, Joan Berger, and Socorro Lindada volunteered their time, working at the event to register survivors and pin red sashes on them in celebration of the victory against cancer.

The event brought in more than $47,000 to fight cancer.

Susan Seidenberg
Alliance to the Harford County Medical Society

In Memoriam

Oscar Abosch, M.D., chief of surgery at Bon Secours Hospital, died of cancer April 23, 1996. Born and raised in Buenos Aires, Argentina, Dr. Abosch earned a medical degree at the University of Buenos Aires in 1962. He came to Baltimore in 1973 and completed a surgical residency at the old Lutheran Hospital and a cardiothoracic residency at Duke University. Dr. Abosch had been affiliated with Bon Secours Hospital since 1982. A thoracic and cardiovascular surgeon, he was named chief of surgery in 1992. He was 57.

Joseph F. Chambers, M.D., a board-certified psychiatrist from Montgomery County, died March 19, 1996. He had an extensive private practice in the suburban Washington, DC, area, which dealt principally with patients suffering from alcohol and other drug addictions. He was a member of the medical staff of Montgomery General Hospital and was the founder and medical director of the Detoxification Program, which was established in 1972. He was also the medical director of the Alcohol and Drug Rehabilitation Program at Montgomery General Hospital from its inception in 1986 through 1991. Dr. Chambers was a founding member of the Physicians Rehabilitation Program, serving as vice chairman from 1977 to 1981 and was chairman from 1981 to 1984.

Jack M. Korsower, M.D., former chairman of the Department of Medical Imaging of Montgomery General Hospital and chief executive officer of Drs. Korsower & Pion Radiology, P.A. until 1995, died of cardiac failure June 13, 1996.

Educated in New York, Dr. Korsower earned his medical degree from the Albert Einstein College of Medicine. He completed his residency and a fellowship in diagnostic radiology at the Albert Einstein Medical Center. He served from 1971 to 1975 as a captain, major, and lieutenant colonel in the U.S. Army Medical Corps. He first served as a pediatric radiologist at Walter Reed General Hospital, then as an associate radiologist and assistant chief of the radiologic pathology division of the Armed Forces Institute of Pathology, and finally as chief of medical imaging at Walter Reed Army Medical Center. At the time of his death, he was serving as president of Health Quality Management in Bethesda and chief consulting officer and vice-president of clinical affairs for Medi-Cen of Maryland. Dr. Korsower was

John M. Krager, M.D., M.P.H., deputy director of the Baltimore County Department of Health, died June 23, 1966, of a heart attack. The Baltimore native served in the Navy as a hospital corpsman during World War II, then earned his undergraduate degree at Loyola College. He received his medical degree from the University of Maryland School of Medicine in 1952, completed an internship at St. Joseph Hospital in 1953, and was an assistant resident in pediatrics at the University of Maryland Hospital from 1953 to 1955. He had a private pediatric practice in Towson. Earning his degree in public health from The Johns Hopkins University School of Hygiene and Public Health, he joined the county health department in 1965 as assistant health officer. Dr. Krager later became deputy health officer, acting health officer, and in 1991, deputy director of the health department. He was responsible for the growth of the school health program, which is now fully integrated with the department of education.Dr. Krager also was an associate in the division of maternal and child health at the Hopkins school of public health. He served on numerous Med Chi committees. He was a Baltimore County representative to the House of Delegates and chairperson of the Committee on Scientific Affairs in 1988. He also represented Med Chi on the board of the Maryland State School Health Council. He served as president and chairperson of the Board of Governors of the Baltimore County Medical Association in 1971 and 1972. Dr. Krager was 69.

Richard J. Otenasek Jr., M.D., a Baltimore neurosurgeon and volunteer, died of cancer July 1, 1996. He earned his medical degree from The Johns Hopkins University School of Medicine in 1958. He completed a surgical internship in 1959. He completed his residency in neurological surgery at Johns Hopkins in 1964. In addition to maintaining a busy private practice, Dr. Otenasek was a part-time instructor in neurological surgery and a member of the staff at The Hopkins Hospital. At St. Joseph Medical Center, he was chief of neurological surgery and a member of the board of trustees. He also was affiliated with Greater Baltimore Medical Center and Church Hospital. Dr. Otenasek was 63.

Elizabeth Brown Sherrill, M.D., died of Alzheimer disease July 4, 1996. Dr. Sherrill earned her undergraduate and medical degrees at the University of Maryland, then trained at the Women's Hospital in Albany. She operated a family practice for many years from a house at York and Shawan roads in Baltimore County. She later lived in Ruxton and Monkton, where she was practicing at the time of her retirement in 1983. Dr. Sherrill maintained a family medical practice for most of her life, but during the 1960s she worked full time at Montebello State Hospital as a physical medicine and rehabilitation specialist. She was 78.

No additional information was available at press time for the following members:

Mamdouh O. Darwish, M.D.
Baltimore County
April 1996

Leonard H. Flax, M.D.
Baltimore County
May 1996

Hector Ramirez-Honey, M.D.
Montgomery County
June 1996

John T. Whitmore, M.D.
Allegany County
February 1996

Don't miss the Med Chi 1996 Semiannual Meeting

Med Chi's Semiannual Meeting scheduled for September 6-8, 1996 at the Sheraton Fontainebleau in Ocean City, Maryland offers participatian in informative business meetings and the opportunity ta attend some of the most exciting and dynamic CME pragrams ta be affered all year!

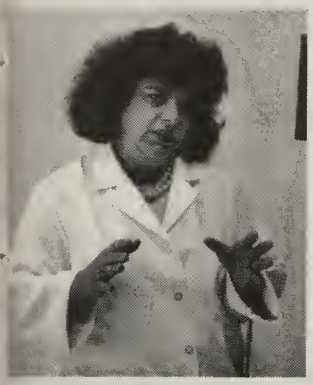
An exciting highlight of the meeting will be the first CME sessian an Friday, September 6 at 1:00 p.m. featuring Robert Redfield, M.D., assistant directar, Institute of Human Virology, University of Maryland Schaol of Medicine. During his presentatian, "New Approaches ta the Evaluation and Treatment af HIV Pasitive and AIDS Patients," he will offer primary care physicians new ways of managing patients who are HIV positive or have AIDS.

Another high point of the meeting will be the plenary session on Friday at 2:00 p.m. Attendees will have the appartunity to hear addresses from William F. Jessie, M.D., AMA vice president af Managed Care and Quality, and Robert E. McAfee, M.D., AMA past president.

If you have nat made plans to attend Med Chi's Semiannual Meeting, make plans immediately to join us for one of the most anticipated events af the entire year! For more infarmatian, call Joan Mannion at 1-800-492-1056 x 319.

set for September 6-8, 1996

Nancy Dickey, MD
AMA Board Chair discusses Physician-Assisted Suicide



Photos by: Ted Grudzinski

What is the AMA's overall position on the issue of physician-assisted suicide?

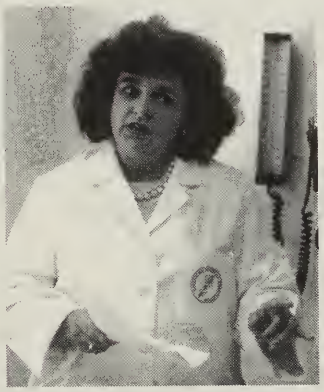
Physicians are devoted to healing and to relieving suffering. As your doctor, I am obligated and committed to helping you in your remaining days. I cannot be the cause of your death, nor can I assist you in causing your own death.

What is the AMA's underlying concern on this issue?

The heart of our concern is placing physicians in the position to actively end their patients' lives. My patients must know wholeheartedly that I am devoted to their health and welfare, not deciding their fate based on what I, or others, might perceive to be the value of their remaining life. Make no mistake, when it comes to caring for my patients' health and welfare, I am their trusted ally.

Does the AMA's Code of Medical Ethics represent all physicians?

Like all individuals, physicians do have a range of personal opinions on various issues. However, the Code of Medical Ethics, which is maintained by the AMA's Council on Ethical and Judicial Affairs, is widely followed throughout the country. It is cited regularly by State Medical Boards when determining standards of practice for the medical profession. In addition, the AMA's House of Delegates reviews and approves all ethical opinions contained in the Code of Medical Ethics. Because the House of Delegates represents, in one way or another, nearly 98 percent of the physicians in America, the Code of Medical Ethics is truly representative of



medicine's position with regard to ethical opinions.

How do you respond to critics who say the AMA's position on physician-assisted suicide does not consider patient fear and desire for dignity at the end of life?

Fear associated with physical suffering, with losing control, with being a burden to or dependent upon family members, and with losing dignity is an understandable reality. The medical profession has not concentrated on these issues to the necessary degree. But, we feel the appropriate alternative to physician-assisted suicide is improved care through a better informed medical profession and public, working together to ease the dying process. I will use all of my skill and knowledge to relieve your suffering, I will get you the help you need to come to terms with death. But, I cannot help you kill yourself.

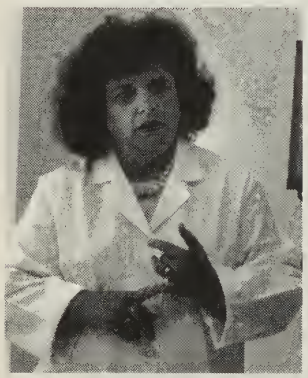
How does the AMA distinguish between controlling pain even if it causes death and assisted suicide?

The distinction is based on the intent of my actions. I am acting in the best interests of my patient if, while attempting to control suffering and maximize his or her comfort, death is hastened.

However, if the intent of my actions goes beyond comfort and focuses specifically on causing death, I am either assisting in suicide or performing euthanasia, both of which are unethical.

Isn't that a fine line?

In some cases it may be a fine line. Usually, however, the intent is very clear. Regardless, if a line is to be drawn, intent to comfort vs. intent to kill is one line physicians must not cross.



How does assisted suicide through pain medication differ from death caused by removal of treatment/life support?

In the case of a patient whose life is artificially extended by technology, they and their family, in consultation with their physician, may decide to withdraw that life support. The patient's ability to remove the technological barriers to natural death is paramount to their autonomy and dignity. Again, the issue is one of intent. By removing artificial life support, I am honoring my patient's wish to allow natural death to occur. My intent is to avoid prolonging artificially-sustained life, not to cause death.

How do you respond to recent court decision in California (9th Circuit), which states that physician-assisted suicide is a Constitutional right?

First of all, nowhere in the Constitution does it state that individuals have a right to have their doctor kill them if they so choose. We find this interpretation to be rather illogical. Second, these and future rulings do not change the ethic of the medical profession which clearly states that physicians should not assist in suicide.

Will the AMA appeal these and other Court decisions?

We will do whatever is necessary to ensure that physicians are not put in a position to kill, and that patients die in comfort and with dignity. If this means appealing directly or submitting amicus briefs or offering verbal



or written testimony in support of an appeal, we will do so. In addition, the AMA is mounting a major information-based campaign to educate and inform the courts, the media, physicians and the general public about the alternatives to physician-assisted suicide, including hospice care.

Will the AMA consider changing its policy regarding physician-assisted suicide?

We will continue our discussions with those whose opinions differ from ours. We will aggressively increase our efforts to educate physicians at all levels in treating physical pain and the psychological needs of patients at the end of life. We will work diligently to enlighten patients on the alternatives to physician assisted suicide, including hospice care. However, the related ethical opinions developed by the AMA's Council on Ethical and Judicial Affairs will remain unchanged.

How does the AMA feel about the $10 million defamation suit brought against you by Jack Kevorkian.

Let's make a distinction here. Notwithstanding our position on physician-assisted suicide, Jack Kevorkian's actions are reprehensible. Even most proponents of physician-assisted suicide are appalled by his activities. Abandoning bodies in parking lots falls well short of our societal expectations for death with dignity. With regard to the lawsuit, we feel that it is nonsense. We will not be silenced on an issue so critical to the welfare of our patients. ◆

Interview by Mark Wolfe

Med Chi

FAX Back
410•547•0915 Survey

Maryland Medical Journal Readership Survey

September 1996

In a continuing attempt to address the needs of its members, Med Chi and the *Maryland Medical Journal* are implementing a monthly "FAX BACK" survey. Each month, the *MMJ* will include a short survey that asks about issues that are important to our members and our organization.

We hope you will take a few minutes to complete the following survey and fax or mail it back to Med Chi. Results of these surveys will be reported in subsequent issues of the *MMJ*.

How informative did you find the following MMJ features?

	extremely →		somewhat →		not at all
News from the President	❑	❑	❑	❑	❑
News from the Chief Executive Officer (formerly Chief Executive Officers Newsletter)	❑	❑	❑	❑	❑
News from the AMA Delegation	❑	❑	❑	❑	❑
News from Annapolis	❑	❑	❑	❑	❑
Maryland Regulatory News	❑	❑	❑	❑	❑
AMA News from Washington, D.C.	❑	❑	❑	❑	❑

What do you like best about the new section of the *MMJ*, the Med Chi News?

Overall, what is your opinion of the Med Chi News?

Comments:

Addendum

This letter is referenced in the column by general counsel on page 735.

July 25, 1996

Martin P. Wasserman, M.D., J.D., Secretary
Department af Health & Mental Hygiene
201 West Preston Street
Baltimore, MD 21201

RE: Medicaid 1115 Waiver Implementation Regulations

Dear Dr. Wasserman:

The Medical & Chirurgical Faculty af Maryland, representing seven thausand physicians in the state, cammends yau ond your staff an the thoughtful and collaborative approach yau have taken to the Medicaid 1115 waiver pracess. In respanse to yaur invitation to interested parties for input an develapment of regulatians far the pragram, we are pleased ta affer the fallawing comments and recammendatians.

In General

We knaw and trust that yaur philosophy far the pragram—that it shauld provide a "medical hame" affering accessible quality care to the Medicaid papulatian—will pervade nat only the writing af the regulatians, but alsa the implementatian and running af the pragram thereafter. Recagnizing that a majar goal and chollenge far the waiver is ta control the Medicoid program's cost, we place high importance an thase features of the prapasal by which the Department and the MIA will monitor and enfarce bath the quality and value of the services offered by the MCOs, and take into accaunt the satisfaction of enrollees and providers. We believe that such feotures of the proposol as the access standards, quality assurance requirements, loss ratio standards, and Medicaid Advisary Committee give yau and the Insurance Commissianer pawerful taals with which to balance the potentially campeting interests of cast cantrol and quality of care. We are also committed to the cancept af affering a meaningful transitianal apportunity ta the histarical Medicaid providers, because it is fair ta thase praviders wha have warked in this difficult arena far years, and because it may have impartant effects upan continuity af care far patients. The fallawing specific camments are directed ta issues in these areas, and are arganized in accardance with the headings under which they appear in the demonstration waiver proposal.

In Particular

1. Definitian af "Medical Necessity" [S.B.750,p28,L17]. The legislatian requires the Department ta "include a definition of medical necessity in its quality and access standards." The proposol does not recite such a definition.

Comment: The terms "medically necessary" and "medicol necessity" oppear among basic requirements af the proposal's Quality Assurance Program (Sec.J(2.3.3)), which directs MCOs to "Ensure that Health care services provided to enrollees promates optimol effects and is medically necessary (sic)." The terms also appear in the statute and the proposal in cannection with the abligatians af MCOs ta pay for certain services rendered at emergency facilities, and in that context they are qualifiers, which hald great patential for use by an MCO to deny payment far such ER services. In requiring the Department ta enunciate the definition of "medical necessity", the legislature clearly recagnized the impartance of the defining this cancept in the regulatians. The decision of what is or is not medically necessary in a particular clinical setting abviausly may be cantraversial. Because the definitian af the terms "medically necessary" and "medical necessity" becames relevant anly in cannection with adjudicatians about payment ar retrospective assessments af quality, long after the care has been rendered, the standard enunciated in the regulations accardingly shauld be legalistic: it shauld nat attempt ta influence the clinical decisians on the scene, but rather judge the medical decisian retraspectively in light of the standord of care for the same or similar community. Therefare, we recammend that the definition of "medical necessity" should be stated in the regulatians as follows:

"Medical necessity" ar "Medically Necessary" means that, on the basis af the informatian reasonably availoble to a health care provider at the time the services ore rendered , the judgment af such health care provider to affer and/ar render medical or other care ta a person is consistent with accepted standards of care under the same ar similar circumstances, and far the same ar similar cammunity.

2. Delivery System [Proposal Section H.]

(a) Integrating Histaric Providers inta MCOs [Sec.H(7),S.B.750 p10,L23; p25,L4]. The legislation directs the Department to establish a mechanism "to initially assure that each historic provider that meets the Department's quality standards has the appartunity to cantinue ta serve program recipients os a subcontractor af at least one" MCO (S.B. 750 p25,L4). The term "histaric pravider" means "a health care provider who, on or before June 30, 1995, had a demanstrated history af praviding services to program recipients, as defined by the Department in regulatians." (S.B.750,p10,L23.)

Camment: A threshald for identifying histaric praviders will be created with the definition of what canstitutes "a demonstrated history af providing services ta pragram recipients." The valume af patients served by a pravider should nat determine whether the provider has a demanstrated histary; for remate lacatian or other circumstances may have limited numbers of Medicaid patients far providers who have been ready, willing and able to serve. Once identified, histaric providers must meet the Department's quality standards, which may present barriers to their inclusion if such standards do not accaunt for practice histary that has been acceptable ta Medicaid heretofore, but naw is not. And once included on an MCO panel to satisfy the law, the historical pravider may face particular risk of deselectian "without cause", since the low does not require the historical provider's continuing presence on the panel. Because the law's historical provider features offer an important transitional opportunity far the affected praviders, and because the continuing inclusian of historical providers may have impartant continuity af care implications, we recammend that the regulations include the following:

(i)Far purpases af qualifying as an historical pravider, a health care provider shall be considered ta have a demanstrated history af service ta Medicaid recipients if such pravider participated in the Maryland Access ta Care (MAC) program, ar was willing and available ta accept Medicaid program participants far a periad af at least one year priar ta June 30, 1995, regardless of the number of program participants actually served by such provider.

(ii)(a) Subject ta subparagraph (b), below, quality standards applicable to individuals seeking to avail themselves af historical provider status for inclusion on an MCO panel should be limited ta a valid license, unrestricted except where a restriction involves a probatian that is conditioned upan a current agreement with the Physician Rehabilitation Pragram.

(b) Before denying any physician historical provider the opportunity to be assigned to on MCO on the grounds that such provider fails to meet the Department's quality standards, the Department shall allow such physician ta submit to a peer review evaluatian to be canducted by a peer review committee af the lacal medical society far the jurisdictian in which the physician maintains a principal office, ar in the absence af such cammittee, by the Peer Review Committee of the Medical & Chirurgical Faculty of the State af Maryland. The Department shall take inta account any repart resulting fram such peer review in its determination whether an histarical pravider shauld be placed an an MCO panel.

(iii)(a) An MCO shall not terminate an historical

pravider without cause far a period af one year after initially cantracting with such historical provider and thereafter termination of an historical provider withaut cause shall be reported to the Secretary.

(b) An MCO shall report ta the Secretary any termination of a contract with an historical provider who has been placed in such MCO's pravider panel by the Department.

3. Access Standards [Proposal Section J.]

(a) Primary Care Capacity Standards; Reasanable Distributian [Sec.J(3.2), S.B.750,p16,L18;p18,L30]. Allocation of Medicaid patients among participating MCOs, and among providers within MCOs, will have a vital impact upon the ability of MCOs and their providers to render quality service and remain economically viable. The proposal states that "primary care capacity standards will include a minimum requirement of one PCP [primary care provider] per 2,000 patients far exclusively Medicaid providers ar will assume each provider in IPA madels represents capacity for 200 unless the MCO negotiates otherwise." Separately, the legislatian requires HMOs that abligate panel praviders to participate in Medicaid MCOs "shall establish a mechanism, subject to review by the Secretary, which provides far equitable distributian af enrallees and which ensures that a pravider will nat be assigned a disproportionate number of enrollees" (S.B. 750,p16,L18). In addition, the legislation provides that "for cause", the Department may disenroll enrollees from an MCO and enroll them in another MCO (S.B. 750,p18,L30).

Comment: Providers normally will not be party to the negotiations between the MCO and the Department. The capacity ratios translate directly into the praviders' workload and will have great importance ta a provider's economic viability in serving Medicaid managed care patients; for it can be expected that this population, on average, will present with problems calling for more frequent attention than the existing commercial managed care population. Hence, it is the providers who are likely to feel the effects of any negotiated variance from the proposed minimum capacity standards of 1:2000 or 1:200. Because it is the MCOs that will control the negotiations, the credentialling of new panel providers and the allocation of Medicaid patients among panel providers, the primary care providers must have a means of relief from inundation with high cost Medicaid patients, short of giving up their entire contractual relationship with the MCO, which is likely also to be an HMO with large numbers of commercial patients. The remedy will be either stemming an inequitable flow of patients to an over-burdened provider, expediting credentialling of employee-providers to work for the existing panel provider, reassignment of enrollees to other MCOs, or any combination of these. Therefore, we recommend that the regulations include the following:

(i)The regulations should either prohibit the MCO from negatiating a capacity ratia that varies fram the minimum standards stated in the prapasal, or they should limit the ability of the MCO to sa negotiate to a standard, e.g."...for 200, provided, however, that the MCO may negatiate otherwise upon a shawing that such standard is nat reasanably attainable far reasans beyond the control of the MCO."

(ii)HMOs that require their panel praviders to participate in a Medicare MCO shall, upon request of a primary care pravider (PCP), limit the number af program enrallees assigned to such PCP sa that the ratio of patients to such PCP daes nat exceed 1:2000. Upan certificatian ta the Department by a PCP that an MCO has failed ta so limit the assignment af patients upan request, the Department shall direct the MCO ta limit such assignment, and failure to comply shall constitute cause for the Department to reassign patients of the MCO to another MCO.

(b) Definitian and Qualifications of Primary Care Pravider [Sec.J(3.6)]. Without actually defining the term "Primary Care Provider (PCP)", the prapasal identifies eight categaries af health prafessianals who may serve as a "primary coordinatar af care ar medical hame" far an MCO: general practitianers, family practitioners, internists, pediatricians, OB/GYNs, pediatric family advanced practice nurse practitianers, certified nurse midwives, and "specialists . . . far appropriate patients."

Comment: The non-physicians in this set have skills that qualify them for many of the tasks that will be demanded of Medicaid PCPs, and they have been granted expanded scope of practice privileges that legally may qualify them to serve as such under appraprate circumstances. But they are not trained to handle all of the areas of responsibility, described in Sectian J(3.5), that will confront Medicaid PCPs. Their lesser training renders them less expensive to the MCO, so the MCO will have a powerful financial incentive to build the Medicaid patient's "medical home" around a non-physician, particularly when the MCO must meet the capacity standards described in the preceding discussion. Because the PCP is intended to be the hub in a comprehensive array of MCO medical services, and because aggregate measures of an MCO's quality, such as the capacity standards, will view its PCPs collectively without regard for qualifications, we believe that inclusion of non-physician professionals in the definition of those who may serve as a PCP raises concerns about quality and continuity of care for Medicaid patients. Recognizing that non-physician professionals will have key roles in all aspects of the Medicaid patient's relationship with the MCO, we recommend that the regulations include the following:

(i)The definition of PCP shall include only the physician categories stated in Section J(3.6) of the proposal; or, at minimum,

(ii)The capacity standards shall specify that not more than five (5) percent of an MCO's primary care providers shall be non-physicians.

(c) Minimum Respanse Time Requirements [Sectian J(5.4)]. The propasal cantains a statement of minimum response times within which a patient must be seen at a regular office visit (ane hour), on a telephone inquiry to the MCO (10 minutes), ar upan a patient inquiry abaut use of emergency room facilities (30 minutes).

Comment: These minimum requirements offer raugh indices of timeliness under ardinary circumstances, but may present unduly rigid basis for unfavorable action either by the Department against an MCO or by an MCO against a pravider in unusual circumstances. For example, a pravider may find herself confranted with emergencies that foul her schedule an multiple accasians, resulting in adverse MCO credentialling actian far her failure ta meet the minimum timeliness requirements. Because the regulations must accommadate real world dynamics, we recammend that the regulations implementing minimum respanse time requirements include language ta the effect that enfarcement af such requirements, either by the Department against an MCO or by an MCO against a pravider, shall take inta accaunt the circumstances af the instances af nan-campliance.

4. Quality Assessment & Improvement Standards [Proposal Section K]

(a) Provider Credentialing & Recredentialing [Sec. K(3)]. The MCOs will be required to emplay credentialing and re-credentialing procedures ta verify the licensure and other credentials of providers (Sec.J(3.1)), and ta elicit fraud, abuse, malpractice and other history, including any disqualification of a provider from participating in Medicare or Medicaid (Sec.J(3.2)).

Comment: Certain credentialing standards can be expected to present hurdles to a provider's participation in a MCO panel. The proposal's credentialing requirements and standards do not include any exceptions or limitations on the normal qualification process for historical providers, other than waiving the on-site inspection for MAC providers who have submitted to inspection within two years prior to application (Sec.J(3.3)). Because S.B. 750 specifically provides for historical providers, and because the proposal includes language elsewhere contemplating that the Department will adopt quality standards for historical providers, on which we have offered comments above, the regulations' general credentialing requirements should contain a specific exception citing to the regulations governing historical providers. Therefore, we recommend that regulations implementing Sec.J(3.1) of the proposal should provide as follows:

MCOs shall comply with State licensure regulations for providers and be required to meet all additional standards established by Medicaid. Except as provided in Section____ [concerning implementing the historical provider provisions—as recommended by Med Chi,

above], standards for credentialing of providers and implementation of credentialing and re-credentialing processes will follow the guidelines established within HCQIS.

(b) Compliance With Practice Guidelines [Sec.J(7)]. Recognizing the MCOs will use practice protocols to make decisions prospectively about utilization of medical service and retrospectively in evaluating provider performance, the proposal states that the Public Health Service Guide to Clinical Preventative Services guidelines (1996) and any practice parameters adopted by HCACC are recommended for use by MCOs (Sec.J(7.2)). Separately, the legislation directs MCOs to comply with "practice guidelines and protocols specified by the Department" (S.B.750,p19, L3).

Comment: The practice protocols employed by managed care entities can be among its most powerful tools affecting the nature, timing, and ultimately the quality of health care delivered by the entity as a whole. They should be publicly available, and their formulation should be the result of medical consensus; they should not be secret or proprietary instruments dictated by fiat. Implementing this concept will serve the Legislature's mandate that the Department shall "[p]rovide a comprehensive system of quality health care services with an emphasis on prevention, education, individualized care, and appropriate case management" (S.B. 750, p12, L31). It will also have the important effect of encouraging provider participation, which the Legislature likewise directed the Department to do (S.B.750, p13,L13). Therefore, we recommend that the regulations contain the following requirements:

(i)All MCOs shall furnish to the Department a copy of all current protocols, guidelines, practice parameters or other documents, schedules or lists (collectively referred to as "Practice Parameters") by which the MCO shall evaluate and/or affect provider decisions about utilization of any particular medical service, protocol or procedure. All such Practice Parameters shall be publicly available, and shall be subject to abrogation or modification by the Secretary, upon consultation with the Medicaid Advisory Committee, the Medical & Chirurgical Faculty of Maryland, the Maryland Hospital Association, and any professional association whose specialty is affected by the Practice Parameter.

(ii)The Department shall make publicly available copies of all current Practice Parameters that it specifies for use by any MCO.

(c) Ombudsman Program [Sec.J(10), S.B. 750, p23, L12]. The legislation and the proposal direct the Department to create an Ombudsman Program to offer dispute resolution and educational services to enrollees regarding the MCO, and to advocate on behalf of enrollees, including assisting them in using the MCO's grievance process. The legislation requires the Department to delegate to a local health department administration of that county's Ombudsman Program upon its request (S.B. 750, p23, L28).The Medicaid Advisory Committee's legislative charge includes reviewing "reports of the ombudsmen" (S.B. 750, p30. L12).

Comment: The Ombudsman Program has potential to reduce friction in the system, if its existence is made known to enrollees and providers, and if it is integrated into the enrollee and provider satisfaction apparatus. Successful implementation of the program will require methods of making the program known to enrollees, and a method of administration and accountability that makes the program meaningful. Because the program will not be centrally administered, it will be difficult to notify all enrollees of their specific ombudsman after they are enrolled, to assess its efficacy, and to establish accountability for performance. Therefore, we recommend the following:

(i)The Department or its enrollment contractor shall have the responsibility to communicate to each enrollee at the time of enrollment the identity of his or her ombudsman and phone number of the local enrollee hotline. This information shall be included in the written materials received by the enrollee upon enrollment.

(ii)Each ombudsman shall be required to report periodically either to the Department or directly to the Committee. This report, at a minimum, shall include number of cases presented to the ombudsman during the reporting period, a brief indication of the nature of each case (e.g., timeliness of service, availability of provider, denial of coverage, etc.), and disposition of each case.

(iii)Each ombudsman shall have wide discretion to discharge its duties in different ways, but removal of an ombudsman by the Secretary shall occur for cause, including persistent failure to take reasonable and timely action to address enrollee concerns that are brought to its attention.

(d) Provider satisfaction [Sec.J(11), S.B. 750, p19, L7 ; p23, L21]. The legislation and proposal require MCOs to implement provider satisfaction mechanisms, including annual provider satisfaction surveys (Sec.J(11.1)), and a complaint, grievance and appeal process distinct from the enrollee grievance process (Sec.J(11.2)). Separately, the Department is required by the statute to establish and maintain "a process for handling provider complaints" about MCOs (S.B.750 p23, L21).

Comment: The provider satisfaction procedures offer potential vehicles not only for addressing individual grievances, but also for identifying and resolving important problems throughout the Medicaid MCO system. In order to have system-wide value, these procedures must have credibility so that they are used and so that problems accordingly are flagged. In addition, problems identified through the grievance processes of the individual MCOs will not necessarily come to the Department's attention, unless there is some integration between those processes and the Department's complaint mechanism. Moreover, the presence of parallel systems raises the potential for duplication of effort in the absence of some integration between them. Therefore, we recommend the following:

(i)MCOs shall furnish information to their panel providers describing their complaint and grievance systems. Such information shall include statements that the MCO is prohibited by law from taking any sanction against a provider for utilizing such systems, and that the Department maintains a separate provider grievance system for MCOs which the provider can use simultaneously with the MCO's system.

(ii)In the event that a provider shall simultaneously file a complaint or grievance with the MCO and Department, the MCO shall suspend action on its internal grievance process pending disposition of the grievance filed with the Department, and the disposition of the Department in such case shall be presumptively correct for purposes of the MCO grievance process.

(iii)MCOs and the Department shall maintain records of complaints and grievances filed by providers. Each MCO shall furnish an annual report to the Department containing, at minimum, data on the number, types and disposition of such provider complaints and grievances presented to the MCO during the preceding year.

5. For More Information

Med Chi is grateful for the opportunity to offer the foregoing comments and recommendations on this important project, and invites inquiries from the Department or its contractors regarding the same. For further information, please contact Michael Preston, Med Chi General Counsel at 410-539-0872, or Joseph A. Schwartz, III, Esq. or Geraldine Valentino, Esq. at 410-244-7000.

Very Truly Yours,
Alex Azar, M.D.
President

From the Editor's Desk

Times, they are a changin'! With this issue, you get news. *MMJ*'s new format brings you a newsletter section with some new and some existing features, all easy to find.

Of course, change presents risk, but so does not changing. Organized medical groups everywhere are shifting priorities to stay current, serve their membership, and communicate effectively. Some state medical societies have established separate scientific and news publications. Some combined publications. Some joined with other states to publish longer (and slicker) magazines. A few abandoned journals for four-color newspapers. The unanswered questions remain: How to communicate best with members—scientific reports, organizational news, legislative updates, tips for office practice? Where are the controlled studies to provide direction? How can Med Chi find common ground for physicians in many age groups in many employment settings? Emerson may have been talking about medical groups: "A foolish consistency is the hobgoblin of little minds."

During the past three years, many changes have evolved in the *MMJ*. The magazine arrives on time. The editorial board has expanded to include wide geographic and specialty representation, community practitioners, residents, academic clinicians, and a medical student. Features such as Cite Seer, Maryland Medicine in Review, Geriatrics for the Clinician, Case Records of the University of Maryland and Baltimore VA Medical Centers, and Codedoc have livened up the pages. Works in progress include a series on practical neurology, another on cancer from the University of Maryland, and another from Hopkins on affective disorders and dementia. Look for a special issue on women in medicine in the near future. Current news from Chicago, Annapolis, and Washington, DC, will appear monthly. Local items that will affect your practice will be featured.

My personal goal for the *MMJ* has been readability. I want you to look forward to each issue for one reason or another. News from the CEO, a column on practice issues, book reviews, obituaries, you name it. I also want to evoke response, a letter to the editor. And, I expect Med Chi members to write articles and to inform their peers.

Take a moment to recall some of the local talent in *MMJ*. Dr. Haile's 40-year look back on local polio statistics, Dr. Nakazawa's memoir of growing up in wartime Japan, Dr. Gershen's Word Rounds, Dr. Adams' anti-smoking efforts; Dr. Miller's historical vignettes, the sports medicine issue last month, and so many others.

When I was in medical school I took the train home for a weekend visit. In New London, a sailor took the seat next to me. I offered him my new *Life* magazine, which he thumbed through with interest. When I mentioned an article on military life, he explained that as a rule he only looked at the pictures. After a brief moment of superiority over his use of "nucular" power and his disinterest in the written word, I realized that his skill in serving as an enlisted man on a submarine might be just as essential as mine in studying medicine. But my skill, as yours, requires reading. It's not enough for us to look at the pictures. Not only must we read, we must make informed decisions and share with our peers.

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John W. Buckley, M.D.
Editor, Maryland Medical Journal

Carol Jack Scott, M.D., is the author of "Ethnicity, Culture, and the Delivery of Health-Care Services," a chapter in *Case Studies in Emergency Medicine and the Health of the Public* published in 1996 by Jones and Bartlett. Dr. Scott is a clinical assistant professor at the University of Maryland Medical Center.

Joy V. Roberts-Twillie, M.D., and Patrick E. Barta, M.D., Ph.D., are among the authors of a study of basal ganglia dysfunction and atrophy in patients with mild to moderate Huntington disease, with correlation of imaging measures with clinical and neuropsychological measures. Results indicate that volumetric measurement of putamen best discriminated patients with Huntington disease from healthy subjects. Neurologic decline correlated best with subcortical atrophy measured by the bicaudate ratio, but neuropsychological performance best corresponded to cerebrospinal fluid percentage, a measure of global atrophy (*Arch Neurol* 1996;53:316–324). Dr. Roberts-Twillie is a postdoctoral fellow in psychiatry and behavioral sciences and Dr. Barta is an associate professor of psychiatry and behavioral sciences at The Johns Hopkins University School of Medicine.

Neil Graham, M.D., M.P.H., is among the authors of a study indicating that survival of AIDS-free HIV-1-infected individuals with CD4 cell counts less than 0.350 x 10^9/L has improved since antiretroviral and HIV prophylactic treatments have become available, but that the long-term prognosis remains poor (*JAMA* 1996;275:1329–1334). Dr. Graham is an associate professor of epidemiology at The Johns Hopkins School of Hygiene and Public Health.

John Talbott, M.D., and Paul E. Ruskin, M.D., are the authors of *Aging in Posttraumatic Stress Disorder*, published in 1996 by American Psychiatric Press, Inc. Dr. Talbott is professor and chair of psychiatry and Dr. Ruskin is a clinical associate professor of psychiatry and director of geropsychiatry at the University of Maryland Medical Center.

Norman J. Cowen, M.D., of The Hand Surgery and Rehabilitation Center in Bowie, Maryland, is the co-author of "Digital Lengthening Through Distraction," a chapter in *Rehabilitation of the Hand: Surgery and Therapy*, published in 1995 by Mosby.

Robert Vogel, M.D., is among the authors of a study of the optimal angiographic definition for long-term success after angioplasty. Results indicate that quantitative coronary angiography does not appear to be better than visual assessment of the immediate change in percent stenosis in predicting one-year outcome (*Am J Cardiol* 1996;77:1067-1072). Dr. Vogel is head of the division of cardiology and the Herbert Berger professor of medicine at the University of Maryland Medical Center.

James P. Keogh, M.D., is among the authors of a multicenter, randomized, double-blind, placebo-controlled study of the effects of a combination of beta carotene and vitamin A on lung cancer and cardiovascular disease among smokers, former smokers, and workers exposed to asbestos. Results indicate the combination of beta carotene and vitamin A had no benefit and may have had an adverse effect on the incidence of lung cancer and on the risk of death from lung cancer, cardiovascular disease, and any cause in smokers and workers exposed to asbestos (*N Engl J Med* 1996;334:1150–1155). Dr. Keogh is an associate professor of medicine at the University of Maryland Medical Center.

Mary E. Bollinger, D.O., Kathleen Schwarz, M.D., and Howard M. Lederman, M.D., Ph.D., are among the authors of a case report describing a neonate with hepatic dysfunction and prolonged hyperbilirubinemia as a complication of adenosine deaminase deficiency. The hepatotoxicity resolved after adenosine deaminase replacement therapy was instituted (*N Engl J Med* 1996;334:1367–1371). Dr. Bollinger is a postdoctoral fellow in pediatrics and Drs. Schwarz and Lederman are associate professors of pediatrics at The Johns Hopkins University School of Medicine.

Alkis Togias, M.D., is among the authors of a study to determine patterns of chronic outpatient management in urban patients with moderate and severe asthma, and to assess medical practice adherence to the *Guidelines for the Diagnosis and Management of Asthma* from the National Asthma Education Program. The investigators report that asthma management was characterized by underuse of anti-inflammatory therapy, inability to use inhalation devices properly, inadequate communication between patient and physician of a plan to be used during acute exacerbation, inadequate physician intervention during the acute stage of exacerbation, and overuse of inhaled beta-agonists during exacerbations (*Am J Med* 1996;100: 386–394). Dr. Togias is an associate professor of medicine at The Johns Hopkins University School of Medicine.

Mark J. Krasna, M.D., John L. Flowers, M.D., Safuh Attar, M.D., and Joseph McLaughlin, M.D., are the authors of a study indicating that the feasibility and efficacy of thoracoscopic and laparoscopic lymph node staging in esophageal cancer. The authors concluded that thoracoscopic and laparoscopic staging are more accurate than existing methods of lymph node staging in esophageal cancer (*J Thorac Cardiovasc Surg* 1996;111:800–807). Dr. Krasna is the director of general thoracic surgery, Dr. Flowers is the director of laparoscopic surgery, Dr. Attar is a professor of thoracic and cardiovascular surgery, and Dr. McLaughlin is a professor and head of cardiothoracic surgery at the University of Maryland Medical Center.

Baltimore psychiatrist **Frank J. Ayd, Jr., M.D.,** is among 25 leading figures in psychopharmacology interviewed for the book *The Psychopharmacologists,* published in July by Chapman & Hall (London). Dr. Ayd, editor of *International Drug Therapy Newsletter* and emeritus director of professional education at Taylor Manor Hospital in Ellicott City, was interviewed about the discovery of antidepressants.

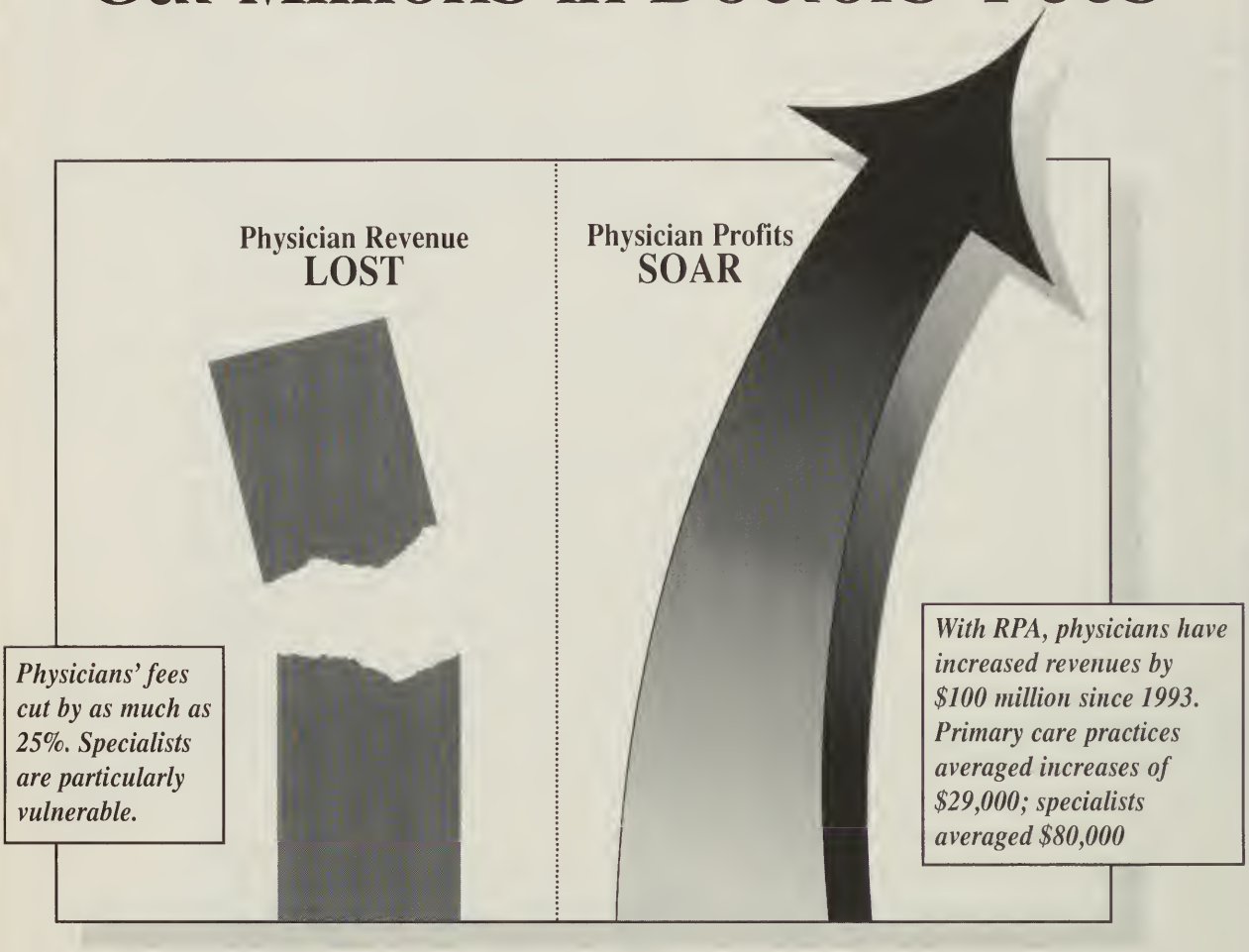
Frederick L. Brancati, M.D., M.H.S., is among the authors of a cross-sectional study of consecutively admitted inner city medical patients to assess the prevalence of lead intoxication (*South Med J* 996;89:471–474). The results indicate that lead intoxication is uncommon in this population and that routine screening is not warranted. Although mild elevation of blood lead level is common, the clinical significance remains to be determined. Dr. Brancati is an assistant professor of medicine at The Johns Hopkins University School of Medicine.

Stephan A. Alkins, M.D., John C. Byrd, M.D., Frank T. Ward, M.D., and Raymond B. Weiss, M.D., are among the authors of two case reports and a literature review describing anaphylactoid reactions to methotrexate. Unlike previously reported cases, their patients developed immediate systemic hypersensitivity reactions during initial methotrexate administration (*Cancer* 1996;77: 2123–2126). Drs. Alkins, Byrd, Ward, and Weiss are from the Uniformed Services University of the Health Sciences in Bethesda.

Curt I. Civin, M.D., is among the contributing authors of a study comparing autologous bone marrow transplantation with intensive consolidation chemotherapy as treatments for children with acute myeloid leukemia in first remission. Results indicate that both treatments are equally effective in prolonging event-free survival (*N Engl J Med* 1996;334: 1428–1434). Dr. Civin is the King Fahd professor of pediatric oncology and professor of pediatrics at The Johns Hopkins University School of Medicine.

Aurelio Rodriguez, M.D., and Charles E. Wiles, III, M.D., are two of the three editors of *Complications in Trauma and Critical Care* published in 1996 by W.B. Saunders. Dr. Rodriguez is an associate professor in the department of surgery at the University of Maryland School of Medicine and an attending traumatologist and thoracic surgeon at the R Adams Cowley Shock Trauma Center in Baltimore. Dr. Wiles is an assistant professor in the department of surgery at the University of Maryland School of Medicine and an attending traumatologist and intensivist at the R Adams Cowley Shock Trauma Center.

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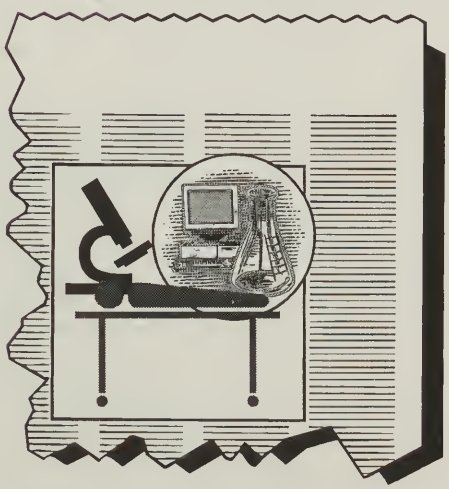
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All submissions should conform to Maryland Medical Journal requirements. For further information or to obtain a copy of submission requirements, contact Mary Ann Ayd, Managing Editor, 1211 Cathedral Street, Baltimore, MD 21201; 410-539-0872 or 1-800-492-1056; FAX 410-547-0915.



The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects), membership and legislative news, continuing medical education notices, and programs and policies of the faculty.*

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  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

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- ***Manuscript preparation***—Manuscripts should be submitted to Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585. Manuscripts must be original material not previously published and not under consideration by another publication. An abstract of 100 to 300 words is required.

  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

- ***Illustrations***—Illustrations include material that cannot be set in type. Photographic material must be submitted as high-contrast, glossy prints. Drawings and graphs must be done professionally in india ink on high-grade white drawing paper or be computer generated. Identification—including figure number, the title of manuscript, the name of corresponding author, and arrow indicating top—should be typed on a gummed label and affixed to the back of each illustration. Legends for illustrations should be typed on a separate page with numbers corresponding to those on the photographs or drawings. Recognizable photographs of patients are to be masked and should carry with them written permission for publication. Cost of printing color photographs must be borne by the author.

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  Accepted manuscripts become the permanent property of the *MMJ* and are subject to copy editing. (The *Chicago Manual of Style* and the unabridged *Random House Dictionary of the English Language* are used as style guides.) The corresponding author is sent a reprint order form and galley proofs. S(he) then has 48 hours in which to make minor changes and clear all corrections and changes with co-authors; if proofs are not returned by the specified date, they will be considered approved as typeset. ■

Panic disorder and depression: how can health care reform address behavioral disorders common in primary care?

Steven L. Shearer, Ph.D., and William D. Hakkarinen, M.D.

ABSTRACT: *The literature on panic disorder and depression illustrates the expense of not identifying and correctly treating behavioral disorders, including increased medical utilization, lost productivity, exacerbated comorbid conditions, and other indirect costs that exceed by at least three-fold the cost of treatment. This article discusses health care reform focused on person-based, rather than employer-based, health insurance; patient incentives to practice responsible utilization review; incentives for primary care physicians to identify and treat behavioral disorders; and facilitation of collaboration between primary care physicians and mental health consultants.*

Dr. Shearer is director of behavioral science training in the department of family practice at Franklin Square Hospital Center in Baltimore and partner in the Anxiety and Stress Disorders Institute of Maryland in Towson. Dr. Hakkarinen is chairperson of the department of family practice and program director of residency training in family practice at Franklin Square Hospital Center.

In the 1990s, the term *managed care* risks being a corporate euphemism for *managed cost* rather than a concept truly invested in the provision of correct care. With an eye only to direct treatment costs, mental health care is often "carved out" to the lowest bidder. From a financial vantage point, the identification of behavioral disorders in primary care and the provision of effective treatment are imperative to real health care reform. In primary care, so-called distressed high utilizers consume markedly disproportionate health care resources.[1] Most of these individuals have anxiety and/or affective disorders that meet criteria defined in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM IV), especially for panic disorder and unipolar major depression, which each have point prevalences of 4% to 8% in primary care.

Meaningful health care reform must attend to such common disorders that are expensive, both personally and societally. Fiscal responsibility in health care requires that behavioral disorders be pursued as legitimate,

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Note: *The views expressed in this article are those of the authors rather than those of Franklin Square Hospital Center or Helix Health System.*

first-line diagnoses, rather than diagnoses of exclusion and neglect.

Medical utilization and functional disability in panic disorder

Panic disorder lowers the threshold for concern about physical sensations, any of which can become conditioned, misinterpreted alarms. Individuals with panic disorder have significantly higher utilization rates for all medical services, including emergency rooms, general outpatient medical services, general psychiatric services, and hospital admission for either physical or psychological problems.[2] Data from the National Institute of Mental Health's Epidemiologic Catchment Area study showed that use of primary care services among patients with panic disorder was approximately three times that of most patients in the health care system.[3] That pattern of high utilization often precedes the diagnosis of panic disorder by as long as a decade. In a 10-year study, patients with panic disorder had significantly more primary care visits, referrals to specialists, emergency room visits, hospital admissions, diagnostic tests, and both psychotropic and nonpsychotropic prescriptions than matched controls.[4]

Persistent panic disorder is characterized by greater functional disability, greater financial dependency, and greater effect on employment seeking than other psychiatric disorders.[2] The DSM IV primary care field trials suggest that individuals with infrequent panic attacks or with panic disorder had significantly higher levels of family, vocational, and social dysfunction than primary care patients without panic attacks.[5] Panic disorder sufferers miss twice as many work days[6] and have a high rate of work disability.[7] Anxiety disorders may compound potentially expensive, even lethal, comorbid conditions. For example, the lifetime rate of alcoholism in women might be reduced if the one third who have primary anxiety disorders were effectively treated.[8]

Somatization is likely to be especially problematic in the era of managed care because distinct subtypes of somatizers may respond differently to treatment.[9] Panic disorder patients seen in primary care are often confused with chronic somatizers and may be disdainfully dismissed as "crocks." For example, in one sample, 71% of patients with panic disorder also met the criteria for DSM-defined somatization disorder.[10] In contrast to true somatization disorder, somatization secondary to panic disorder is usually very responsive to appropriate treatment.

Medical utilization and functional disability in depression

Unipolar major depression also has been linked with high medical utilization and various measures of functional disability.[11] A comparison of HMO primary care patients with and without a diagnosis of depression showed that depressed patients had significantly higher annual health care costs in every category of care, only a small portion of which was attributable to direct treatment costs for depression.[12]

Affective disorders ranked second only to advanced coronary heart disease in total number of days patients spent in the hospital or disabled at home.[13] Untreated depressed patients spent twice as long home in bed (32 days) as treated depressed patients,[14] and workers with a diagnosis of depression missed an average of 40 work days, with significant 12-month recidivism.[15] Such major depressive episodes cost business an average of $3,000 for each depressed worker through indirect costs such as lost productivity.[14] Major depression also has been linked to diminished interpersonal functioning; increased physical complaints and illnesses; diminished self-perceived health status; and increased mortality, primarily due to a 10% to 15% lifetime risk of suicide, but including increased mortality from all causes.[11]

Effective treatment of panic disorder

Both psychopharmacologic and cognitive-behavioral treatments are effective in attenuating the symptoms of panic disorder. Outcome studies involving selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), and high potency benzodiazepines generally yield significant improvement in 50% to 80% of individuals with panic disorder, compared to placebo response rates averaging 30% to 40%. Although published dropout rates range as high as 40%, it is important to note that SSRI and TCA side effects can mimic subjective panic symptoms and provoke alarm. Those who are sensitized by panic are often frightened by the uncertainty of ingesting medication, such that there is often a reversed placebo effect, with reported adverse response even within seconds of ingestion. Individuals with panic disorder also may be more prone to an agitated, hypersensitive response to usual full starting doses and subsequently refuse further medication. Thus, SSRI and TCA trials are usually initiated at half or less of the usual starting dose. Published relapse rates after discontinuation of drug trials, if no other treatment is provided, range from 30% to 100%.

In comparison, cognitive-behavioral treatment programs have comparable or higher response rates and lower dropout

(average, 10%) and relapse (0% to 10%) rates. Effective psychological interventions usually use some combination of patient education, cognitive interventions focused especially on the catastrophic misinterpretation of bodily sensations, *in vivo* exposure to phobic stimuli, interoceptive exposure to feared bodily sensations, training in diaphragmatic breathing, cognitive coping skills acquisition, group supports and problem-solving and/or insight regarding contributory stressors.[16] Focused cognitive-behavioral interventions are more effective than nondirective, supportive psychotherapy in the treatment of panic disorder,[17] but effective patient education may be the single most active ingredient in various effective approaches.[18]

Effective treatment of depression

Both psychopharmacologic and cognitive-behavioral treatments have demonstrated effectiveness in the treatment of unipolar major depression. Outcome studies using various SSRIs and TCAs in various treatment settings average 50% to 70% rates of significant improvement, compared to an average placebo improvement rate of about 30%.[11]

Some authors have criticized the *Clinical Practice Guideline for Depression in Primary Care* for its emphasis on biomedical treatments at the expense of psychotherapeutic approaches.[19,20] The literature generally suggests that cognitive-behavioral and interpersonal treatments are as or more effective than psychopharmacologic treatment in mild to moderate depression. There is no clear consensus about the comparison in the treatment of severe depression. Clinical practice, however, usually uses combined approaches. In one study, brief, pragmatic "problem solving therapy" in primary care was more effective than TCA treatment.[21] The primary care physician's use of rudimentary cognitive therapy techniques was associated with patients' active use of such techniques and with improved adherence to psychopharmacologic treatment.[22]

Treatment of panic disorder and depression in primary care

Primary care physicians can effectively tailor cognitive-behavioral, interpersonal, and pragmatic interventions for treating uncomplicated anxiety and affective disorders in brief office visits.[23,24] Such intervention, coupled with appropriate medication, patient education, and/or support groups, will be effective for many patients. There is growing indication, however, that variously recommended screening techniques[25] and brief counseling efforts by primary care physicians will not be reimbursed as "medically necessary." Given uncertain reimbursement, varying expertise and willingness among physicians, and a health care system in which patient contacts are often squeezed to an average of eight minutes, it is unrealistic to expect effective treatment of most anxiety and affective disorders in primary care. Thus, primary care physicians must have access to well-qualified consultants and familiar treatment referral options for behavioral disorders that are not sufficiently responsive to initial treatment efforts in the primary care setting.

"Cheap" versus "cost effective" treatment

Cost-effective treatment for anxiety and affective disorders is not necessarily cheap treatment.[26] Cheap treatment focuses only on immediate, direct costs. Any assessment of the "cost-effectiveness" of a treatment must consider associated indirect and long-term costs that patients, employers, and the health care system will incur: potential cost of lost productivity; overall health care utilization costs; potential costs of disability; safety risks on the job; potential costs of immunosuppression secondary to stressful life events that may be both cause and consequence of anxiety and affective disorders; future health costs of increases in smoking and alcohol intake associated with untreated anxiety and affective disorders.

The ratio of indirect to direct costs is at least three to one for both anxiety disorders[27] and depression.[14] Put another way, the cost of not providing treatment is at least three times that of providing treatment. Even expensive treatment, if of high quality, may prove to be cost effective when viewed through such a macroscope, rather than through the microscope of immediate savings in direct costs. For example, there was a strong cost offset effect when both total direct costs of health care and indirect costs of lost productivity were tallied before and after effective treatment of panic disorder.[28]

Treatment outcome studies versus treatment in the real world of patient care

Clinicians have often observed that many patients with affective and anxiety disorders do not have the spectacular outcomes suggested by the literature and note a propensity for recurrence and for residual symptoms between episodes. For example, the impressive "panic free" percentages cited in the cognitive-behavioral and medication outcome literature contrast with clinicians' concerns that "panic free" may be an unrealistic outcome criterion that unwittingly predisposes patients to be alarmed and demoralized when they have a recurrence. The premier researcher in this area has

reported that patients who were panic free at follow-up were not necessarily those who were originally panic free at the end of treatment.[29] Panic disorder may have a variable course and symptoms may recur over time, suggesting the need for integrated treatment using an active coping model focused on management and recovery rather than a symptom-free "cure." More meaningful outcome criteria include measures of functional disability, quality of life, effectiveness of cognitive-behavioral coping strategies, extent of avoidance, and overall medical utilization costs, rather than the presence of panic symptoms per se. Successful treatment often requires other psychosocial interventions, with special attention to comorbid conditions that complicate treatment and increase the probability of relapse or recurrence. Such treatments may not be "cheap," but will likely prove to be "cost effective."

Treatment of anxiety and affective disorders in a managed care world

Many managed care organizations (MCOs), especially prepaid, capitated plans, "carve out" behavioral health care to the lowest bidder. For the primary care physician who wants to refer a patient for mental health treatment, there are numerous barriers to a collaborative, effective referral. The MCO's provider list is usually very limited and confidential; thus, physicians may have no way to choose a consultant they know has special expertise or matching characteristics for a particular patient and clinical problem. Patients themselves often must call the MCO for a mental health referral; they may be given several names and the responsibility for discerning which of the unknown clinicians might be best suited to help them. There is typically no consultation between physician and mental health "contractor" before the patient's appointment. To low bid such contracts, the "carve out" contractor usually relies on the cheapest possible therapists for the shortest possible interventions; there is no incentive to provide quality care other than the need to minimize patient complaints that might interfere with subsequent contract negotiations. Because the employer, not the patient, is the consumer, and because patients are unlikely to voice concerns about their *mental* health treatment directly to their employer, potential patient complaints are unlikely to be a significant incentive for providing quality care.

MCO utilization reviewers often approve only symptom-focused, crisis intervention for two to eight visits. There is heavy emphasis on advice-giving and psychotropic medications, which sometimes includes controlling the physician's drug choice (e.g., cheaper, generic TCAs rather than expensive SSRIs).[30] Some reviewers try to dictate the very content of therapy sessions. "Chronic" or "ongoing" conditions, as opposed to "acute" conditions, are often simply not reimbursed. Utilization reviewers often micromanage the treatment, even though it has regularly been reported that 85% of mental health treatment ends before the 26th session, without external management, when co-pays encourage utilization review by patients themselves. Patients sophisticated about confidentiality often opt not to use their insurance coverage when they learn that extensive personal information must be submitted to authorize their care. Clinicians risk their financial livelihood by advocating for their patients or by violating explicit or implicit "gag" rules that constrain them from saying anything negative about the MCO. The MCO's clinicians are contractually and ethically required to exercise clinical judgment; yet, when such judgment is exercised in a manner that conflicts with what the MCO chooses to reimburse, clinicians are deemed "not managed care friendly," prompting evaporation of referrals or dismissal from the MCO's list of providers.

Anecdotal experiences from clinical practice suggest that managed care reviewers sometimes characterize anxiety disorders as virtual "common colds" of psychiatry, thus making their treatment "not medically necessary." Other reviewers sometimes characterize those with anxiety or depressive disorders as "unresponsive" or "chronic" when they do not improve in a tidy time frame, again suggesting that their continued treatment cannot be justified. Such managed care opinions trivialize the suffering in patients' lives and ignore an extensive research literature on functional disability, medical utilization, treatment outcome, and the ratio of indirect to direct costs for these disorders. This approach epitomizes the proverbial "penny wise, pound foolish" thinking that often characterizes the current managed care climate.

Beyond such anecdotal evidence, some empirical data suggest that care for patients with anxiety and affective disorders may be different in managed care systems. Benzodiazepines were prescribed significantly more often and antidepressants significantly less often in prepaid health plans as compared to fee-for-service health care.[31] Data suggest that more severely depressed patients may be less likely to persist with antidepressant medication and may achieve worse functional outcomes in prepaid plans compared with fee-for-service health care.[32]

Example of estimated alternative costs to insurers

Among patients presenting with chest pain and negative angiograms, 33% to 43% have panic disorder rather than cardiac disease.[33] It is not unusual for such patients to have had numerous visits to emergency rooms and numerous cardiologic consultations with symptoms that must be taken seriously. (We know one patient who consulted 13 cardiologists, underwent innumerable cardiac function tests, and even went to two different emergency rooms in the same night.) In these situations, recurring estimated costs over many years may include an electrocardiogram ($40), echocardiogram ($300), stress test ($60), Holter monitoring ($200), emergency room visit ($125), angiogram ($2000), and consultant fees ($300). Thus, the cost for even a few *weeks* of acute panic symptoms could easily range to $2000, without considering either indirect costs (e.g., time missed from work) or likely persistent medical overutilization. Furthermore, our example involves a hypothetical patient whose alarm is focused on a single organ system. Many patients with panic disorder may also consult gastroenterologists, vestibular function clinics, endocrinologists, neurologists, pulmonologists, and other specialists at a cost many times higher.

By comparison, consider a diagnosis of panic disorder established early, after initial evaluation including history and physical, ECG, and laboratory studies ($250); patient education and initial counseling in primary care ($200); a possible trial of medication such as an SSRI for 12 months ($800); and referral for specialist-conducted, cognitive-behavioral group psychotherapy specialized for panic disorder. The predominant local MCO's reimbursement rate is $9.58 for psychologist-provided CPT 90853 group psychotherapy for 90 minutes. If the treatment plan survives vigorous utilization review, the insurer's outlay for one full year of weekly treatment of panic disorder would be about $500. (Some insurers pay more; others refuse to pay anything for this form of treatment.) Thus, the insurer's total outlay for providing primary care evaluation and specialized treatment likely to be effective for uncomplicated panic disorder, even if it lasted for an entire year, would be as little as $950 without medication, $1750 with medication. Even if comorbid conditions or contributing psychosocial factors required 20 sessions of individual or family psychotherapy (at an average cost to the insurer of $45 each, or $900) or specialized psychopharmacologic consultation (estimated cost to insurer, $300), direct costs to the insurer for reasonable medical evaluation and a full year of treatment, including medication, would likely be less than $3000. That sum does not include the cost to the patient, to whom costs have already been disproportionately shifted for "nervous and mental benefits" compared with insurers' reimbursement rates for other health care. However, this example also does not include expected indirect savings in the form of increased productivity, decreased functional disability, and decreased overall medical utilization, both short- and long-term.

Conclusions

The literature on panic disorder and unipolar major depression illustrates the expense of not identifying and treating behavioral disorders that present commonly in primary care settings. Whether through high medical utilization, lost productivity, exacerbated comorbid conditions, or other indirect costs, failure to provide truly cost-effective treatment exacts a cost that transcends by at least three-fold the direct cost of correct treatment. Because society will pay for these disorders one way or another, rational health care reform must meaningfully address them.

Patients with behavioral disorders often first contact primary care physicians, who are expected to "provide short-term or behavioral psychotherapy" according to current ambulatory care guidelines.[34] Therefore, primary care physicians should be adequately reimbursed for appropriate screening, patient education, and initial counseling. When referral is indicated, primary care physicians should be free to recommend and consult with a mental health professional of their choosing for a specific patient and clinical problem, with the goal of truly collaborative rather than "carved out" treatment. Mental health subcontracting to low bidders, although unmistakably attractive to payers, is unlikely to provide truly cost-effective treatment. Medical care organizations are increasingly forming "integrated delivery systems." If such systems substantively "integrate" behavioral medicine with primary care services, they may contribute to improved identification and treatment of behavioral disorders in primary care.

The managed care concept was appealing to business and government leaders hoping to rein in escalating health care costs. However, policy makers underestimated the potential for profit-driven abuses in the name of cost consciousness, especially in mental health care. Given the backing of corporate leaders and the lobbying power of the insurance industry, there is reason to wonder whether managed care can be effectively regulated. Employer-based health insurance, based on short-term negotiations for the cheapest price, inherently conflicts with the needs of individuals and

of society. Employers are, understandably, unlikely to be concerned about indirect costs of behavioral disorders to society. When the employer, rather than the patient, is the consumer, the much-touted free market exists only for employers and insurers, not for patients and providers. If private health insurance was person-based, like any other form of insurance, individuals would have portable, self-controlled coverage, with the freedom to switch to another company if dissatisfied and a strong incentive to purchase wisely.

One proposal for reforming mental health reimbursement recommends a standard partial payment, coupled with a sliding scale co-pay based on the patient's ability to pay.[35] Such individually tailored co-pays negotiated directly between patient and clinician would allow ready access to service while instilling strong incentives for self-conducted utilization review by patients themselves. Freedom of choice would be restored both for patients seeking treatment as well as for primary care physicians making referrals. External utilization review, preferably by a not-for-profit agent, could be implemented after the 25th visit to ensure that longer-term treatment is truly indicated and appropriately conducted for the 15% of patients whose treatment persists. Resources currently spent on ubiquitous utilization review, administrative structures, and well-documented managed care profits could be redirected to patient care. Compared to the current system, which is authoritarian and external to the patient, such reform would implement cost containment that is as democratic and internal to the patient as possible.[35]

Confidentiality is prerequisite to the effective identification and treatment of behavioral disorders. As patients realize that even minimal diagnostic information about their behavioral disorder, when automatically submitted to rapidly expanding computer data banks, could preclude their obtaining disability, health, or life insurance in the future, they are unlikely to speak frankly to their physician. Advocates for such data collection minimize the risk to individual patients, the destruction of the very foundation of the doctor-patient relationship, and the resulting indirect costs of creating a "don't ask, don't tell" environment in the health care setting. It is imperative that data used for regulatory, quality assurance, or epidemiologic purposes be free of any personally identifiable detail; any data that could allow identification of an individual must require that patient's specific informed consent. If legislators do not take action to protect patients' privacy, behavioral disorders cannot be effectively identified and treated.

Mental health care is a special subset of health care for a variety of reasons (e.g., heightened importance of privacy, patient-clinician relationship, and continuity). It also has been treated differently (e.g., lack of parity in reimbursement, frequent nonreimbursement for "ongoing" conditions, "carve outs" to low bid subcontractors) for a variety of reasons (e.g., societal stigma, poorly informed policy decisions, minimal "voice" of affected patients). Mental health care has been a preferred target of managed care rationing and profiteering, even though outpatient mental health and substance abuse treatment has for 20 years consumed a stable, modest portion (i.e., less than 2%) of private health care dollars.

We all agree that health care resources are limited and that some form of cost containment is necessary. However, especially in mental health care, current methods of cost containment are abusive just as there were abuses in the unrestrained fee-for-service system they replaced, as exemplified by the for-profit psychiatric hospital scandals. Rather than accomplishing health care reform, we seem only to have shifted from profit-driven abuses in the provision of care to profit-driven abuses in the denial of care. Continued profiteering and corporate empire-building, at the expense of patient care and the needs of society, will eventually outweigh the concerns that thus far have precluded a government-controlled national health system. Moral and economic reform of the health care system requires that mental health care be integral rather than peripheral to a new system based on patient-centered freedoms and cost controls.

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Case report: severe microcytosis associated with the anemia of chronic disease

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ABSTRACT: *When microcytosis is present in patients with anemia of chronic disease, the mean corpuscular volume (MCV) rarely if ever falls below 70 fL. The lowest MCV previously reported is 67 fL. We describe a patient with anemia of chronic disease with severe microcytosis and an MCV of 61 fL. After correction of the chronic disorder, complete correction of the hematologic values occurred. In patients with a low total iron binding capacity, iron therapy should not be instituted without clearly establishing the presence of iron deficiency irrespective of the degree of microcytosis.*

The anemia of chronic disease is characteristically normochromic and normocytic. However, up to 32% of patients with anemia of chronic disease may be microcytic.[1] Rarely does the mean corpuscular volume (MCV) fall below 70 fL. In such cases, other causes of microcytic anemia (**Table 1**), especially iron deficiency, must be excluded. Described below is a patient with xanthogranulomatous pyelonephritis and severe microcytic anemia. Other causes of microcytosis were carefully excluded. The patient's anemia and microcytosis resolved completely following definitive therapy for the pyelonephritis.

Case report

A 58-year-old woman was referred for evaluation of anemia. Her health history was unremarkable until age 35, when she passed a renal calculus. During the next eight years, she experienced numerous episodes of pyelonephritis and she developed increasing nephrolithiasis. At age 50, a staghorn calculus was diagnosed and a year later open removal of

the calculus was attempted. Severe intraoperative bleeding precluded successful completion of the surgery and the calculus was not removed. Numerous episodes of pyelonephritis occurred until age 52, when the infectious episodes ceased. At that time, the hemoglobin was 144 g/L and the MCV was 88 fL.

The patient had no further problems until age 57, when she developed fatigue and anorexia. She had no dizziness, palpitations, orthostasis, pagophagia, or chest pain, but had a 10-pound weight loss over the next year. A private physician diagnosed anemia and prescribed oral iron. At that time, the hemoglobin was 95 g/L and the MCV was 67 fL. The white-cell count was 13 900; differential was normal. The platelet count was 669 000. The reticulocyte count was 8×10^{-3}. The serum iron was 24 µg/ml, the total iron-binding capacity (TIBG) was 227 µg/ml, and the serum ferritin 192 µg/L.

Table 1. Causes of microcytic anemia

- ***Elemental deficiencies***
  - iron
  - selenium
  - manganese
  - copper[2]
- ***Elemental excesses***
  - lead
  - aluminum[3]
  - zinc[4]
- ***Hemoglobinopathies***
  - thalassemias, heriditary and acquired
  - hemoglobin Lepore[5]
  - hemoglobin E[6]
- ***Hereditary sideroblastic anemia***[7]
- ***Antitransferrin receptor antibodies***[8]
- ***Red cell calcium leak***[9]
- ***Hodgkin disease***[10]
- ***Metabolic disorders***
  - hypothyroidism[10]
  - hyperthyroidism[11]

The anemia worsened despite oral iron therapy and the patient was referred for parenteral iron treatment. The hemoglobin was 85 g/L and the MCV was 61 fL. The mean corpuscular hemoglobin (MCH) was 19.8 pg and the mean corpuscular hemoglobin concentration (MCHC) was 325 g/L. The peripheral smear showed marked hypochromia. There was no significant aniso or poikilocytosis. There were no target cells, tear drops, schistocytes, or nucleated red cells. A chemical profile was within normal limits. The lactate dehydrogenase was 165 U/L (normal). A reticulocyte count was 6×10^{-3}. The serum iron was 14 µg/ml, the TIBC was 165 µg/ml, and the ferritin was 165 µg/L. Hemoglobin electrophoresis showed an AA pattern with a hemoglobin A2 (by column chromatography) of 2.0% and a hemoglobin F (by alkali denaturation) of 0.2%. Serum protein electrophoresis showed polyclonal hypergammaglobulinemia. Thyroid function tests were normal. Bone marrow aspiration showed normoblastic erythroid and myeloid maturation. Megakaryocytes were increased quantitatively and were normal morphologically. There were no abnormal forms present. A ferrocyanide stain showed a marked increase in iron, clumped, outside of the erythroid precursors. There were no ringed sideroblasts. A chromosomal analysis of the aspirate showed a normal female karyotype. Serum lead, aluminum, zinc, selenium, and manganese levels were normal. Serum erythropoietin was less than 5 U/ml, and 24-hour urine creatinine clearance was 1.30 mL/s.

Renal scan showed a nonfunctioning right kidney, and a computed tomography scan of the abdomen showed hydronephrosis of the right kidney with a staghorn calculus. Multiple pararenal cystic fluid collections with thickened walls were noted, consistent with xanthogranulomatous pyelonephritis (**Figure 1**).

Four units of red cells were transfused and a right nephrectomy was performed. Pathologic examination of the kidney revealed nephrolithiasis with diffuse, severe, chronic, and subacute pyelonephritis with extensive destruction of renal parenchyma (**Figure 2**).

Eight weeks after surgery, the hemoglobin was 131 g/L and the MCV was 86 fL. The MCH was 26.4 pg and the MCHC was 314 g/L. The serum iron was 45 µg/ml, the TIBC was 290 µg/ml, and the serum ferritin was 187 µg/L.

Discussion

Anemia of chronic disease is characterized by a hypoproliferative anemia and ineffective utilization of iron. It is associated with low serum iron and TIBC. When microcytosis is present, the MCV rarely if ever falls below 70 fL.[12,13] In a review of 90 patients with anemia of chronic disease, the MCV was less than 80 fL in 21%.[12] One patient with a chronic inflammatory disease had an MCV of 67 fL, the lowest level previously reported in anemia of chronic disease.[12]

Anemia of chronic disease and microcytosis have been described in a variety of disorders, including infections, rheumatoid arthritis, and malignancy.[14,15] Cartwright described the anemia of chronic disease in 1952[16] and reviewed the subject in 1966.[17] A disorder of iron utilization was postulated, but a mechanism for the decreased utilization was not hypothesized until Lee[13] reviewed the subject again in 1983. He suggested a role of the leukocyte protein, leukocyte endogenous mediator liberating the iron binding protein lactoferrin.[13,18] The latter compound has a much greater affinity for iron than transferrin and competes with transferrin for available iron, impairing transferrin's ability to deliver iron to the erythron. Data from Douglas and Adamson[19] support this notion by providing evidence that the marrow proliferative response to anemia in anemia of chronic disorders is limited primarily by the availability of iron. Christensen[15] has shown the inability of the percent transferrin saturation to diagnose accurately the presence of concomitant iron deficiency in anemia of chronic disease.



Figure 1. Computed tomogram of kidney showing staghorn calculus (open arrow) and pararenal cystic fluid collection (closed arrow).

When the total iron binding capacity is low, further documentation of iron deficiency with the serum ferritin and marrow hemosiderin stain is necessary before iron therapy is started. It is not clear why some patients with anemia of chronic disease are microcytic or why extreme microcytosis occurs. The chronic pyelonephritis in the current patient was present for nearly 23 years, which suggests that long duration of anemia and chronic illness may have a role in the causation of the microcytosis. An extensive literature review, however, failed to reveal such an association and therefore it must be considered speculative.

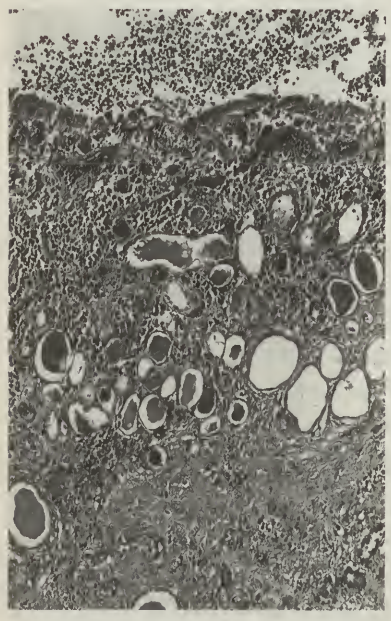


Figure 2. Photomicrograph of nephrectomy specimen showing severe, chronic, subacute pyelonephritis with destruction of renal parenchyma.

Patients with anemia of chronic disease often have elevated total body iron. Iron therapy is associated with many unpleasant side effects and should not be prescribed in the absence of iron deficiency. Iron therapy in patients with elevated iron stores can lead to iron overload, further impairing a chronically infected patient's immune response.[20]

This case reiterates the failure of the serum iron, percent transferrin saturation, and MCV to predict the presence of iron deficiency in patients with anemia of chronic disease. It clearly shows that marked microcytosis can be present in this disorder and describes the lowest reported MCV in a patient with proven anemia of chronic disease.

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CASE RECORDS

of the University of Maryland and Baltimore VA Medical Centers

A 39-year-old man with mental status change

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Presentation of case

E.P. is a 39-year-old man who was brought to the emergency room in early October for evaluation of lethargy and confusion.

He was traveling from Richmond to Philadelphia when he became ill and was found unconscious under the steps of the Baltimore Museum on Baltimore Street in the late afternoon. He was apparently well when he left Richmond at 7 AM. There was no evidence of trauma, and the patient did not smell of alcohol.

History. E.P. worked as a writer. He had no known allergies, coronary artery disease, diabetes, or other systemic illness, and was taking no medication. He had had cholera three months before the current hospitalization. In addition to a history of depression and possibly of opiate abuse, he had a history of alcohol abuse. He had abstained from drinking for the past 6 months, however, and there was no reported history of seizures or delirium tremens. The patient smoked tobacco on a regular basis and was sexually active with women. There were no known pathologic work exposures.

Hospital course. E.P. was admitted to the hospital for observation. He was initially unresponsive and remained so until approximately 3 AM, when he developed tremulousness and delirium and began having visual hallucinations. He was noted to be drenched with perspiration and to have wide variations in his pulse rate. He remained in this state for the next 28 hours. Early in the morning on the third hospital day, he became tranquil.

Results of a physical examination showed a well-developed white man who was calm and appropriate. The skin was warm and diaphoretic. The pulse rate was in the 50s and "thready." Results of a neurologic examination showed the patient was alert, oriented, and appropriate. There was no tremor and he followed commands appropriately.

The patient said he felt "miserable," but denied specific pain. He did complain of mild diffuse abdominal discomfort and headache. He had no recollection of how he had arrived at the hospital or of the events leading up to his illness.

Because of his improving status, he was transferred to the ward room. Here, his physicians attempted to treat him with alcohol, which he vehemently refused to drink. He soon worsened again and by the evening of the third hospital day, his mental status became clouded. He was noted to have shallow, rapid respiration and diffuse weakness. He drank water only with great difficulty. By late evening, he was again delirious, became combative, and required restraint. He remained in this state, calling out for family and friends, until his death on the fourth hospital day.

CASE RECORDS

Differential diagnosis

Delirium. Whenever I am faced with a challenging case, I initially try to distill it to its basic features, which in this case I believe to be those of delirium and autonomic variability occurring in a relapsing fashion and resulting ultimately in the patient's death. Delirium is marked by clouded consciousness, impaired memory, impaired cognitive function and perception, and emotional disturbance. It may have a systemic, neurologic, or rarely, a psychiatric cause. Psychiatric causes of delirium are generally diagnoses of exclusion. Because delirium almost always reflects a systemic or neurologic cause, I have chosen to concentrate on these etiologies for the purpose of this discussion.

Neurologic causes of delirium are listed in **Table 1**. We are told the patient had no known history of trauma, and no physical evidence of trauma was noted at the time of examination. Nevertheless, a chronic subdural hematoma from prior trauma could go unrecognized, especially in a patient with a history of prior alcoholism who may have suffered traumatic injury during a period of impaired consciousness. It is unlikely that an epidural expanding hematoma from recent injury would cause this degree of impairment without further lateralizing signs on physical examination. Neoplastic diseases involving the central nervous system (CNS) and vascular malformations may cause changes in processes of thought, emotion, or cognition. In the absence of lateralizing signs on physical examination, I believe it is unlikely that one of these is responsible for the degree of impairment noted in our patient. Epilepsy can certainly cause impaired consciousness and postictal delirium, and may occur in a relapsing or intermittent course. It is unlikely, however, that our patient suffered generalized seizure activity for three days and then spontaneously recovered without further intervention.

Table 1. Neurologic causes of delirium

- Trauma
- Vascular disorders
- Neoplasia
- Epilepsy
- CNS infections

Primary CNS infectious processes could be responsible for his condition, and I will return to them in greater depth later in the discussion.

Systemic causes of delirium are listed in **Table 2**. Because no clinicopathologic conference is complete without the mention of porphyria, I list it under the metabolic category. Acute intermittent porphyria may involve delirium, occur in a cyclical course, and be fatal. Patients also may complain of abdominal pain. It is unlikely, however, that our patient had his first episode of acute intermittent porphyria at age 39. There is also no mention of a rash or other skin changes, nor is there any mention of a change in the color of the patient's urine, which may be seen in porphyria. Thus, porphyria appears to be an unlikely etiology.

Endocrinopathies, including derangements of glucose, calcium, and sodium homeostasis, can cause delirium, but not usually in a relapsing course without some intervention. For this reason, as well as the fact that these entities are easily identifiable by routine laboratory screening, I will exclude them from the remainder of this discussion. Disorders of the thyroid, adrenal, or pituitary axis could also be responsible, but again do not generally have a relapsing course associated with them in the absence of intervention.

Several nutritional causes of delirium are worth mentioning given our patient's history of alcoholism. Superior hemorrhagic polioencephalitis (Wernicke syndrome) and alcohol amnestic disorder (Korsakoff psychosis) are due to thiamine deficiency and may result in delirium, dementia, and death. The former, however, is generally associated with ocular motor signs (usually bilateral sixth nerve palsy) and is generally progressive rather than relapsing. Thus, Wernicke syndrome is an unlikely cause of our patient's death. Pellagra (niacin deficiency) also occurs in alcoholics with chronic poor nutritional intake. It is characterized by progressive dementia, diarrhea, dermatitis, and ultimately death. Given the relapsing, acute course of our patient's illness and the lack of associated dermatologic findings, I will exclude this as a possibility.

Hematologic causes of delirium include leukemic infiltration of the CNS and hyperviscosity syndromes such as Waldenstrom macroglobulinemia. Neither is generally associated with a relapsing course or with autonomic variability. In addition, in hyperviscosity syndromes, examination of the retinas may show vessels that have a characteristic "sausage link" appearance, which is not mentioned in our patient.

Toxic causes of delirium are worth mentioning, given our patient's proclivity for alcohol and drugs. Alcohol withdrawal is characterized by tremors, autonomic hyperactivity, delirium, and seizures. In chronic alcoholics, symptoms usually begin within 5 to 10 hours of a decrease in serum alcohol levels, peak in intensity at 24 to 48 hours, and improve by the fourth or fifth day. If withdrawal is appropriately treated, it is rarely lethal. We are told that our patient had abstained from alcohol for the past six months, and that he did not smell of alcohol at the time of admission. In addition, it is unusual for patients suffering from alcohol withdrawal to become acutely ill, recover for a brief time, then worsen and die. For these reasons, although it is an attractive possibility, I will exclude alcohol withdrawal.

We are told that our patient may have used opiates, and so opiate withdrawal must be considered. Withdrawal from opiates generally begins 36 to 72 hours after discontinuation of the drug. It is an acute syndrome lasting 5 to 8 days and characterized by nausea, lacrimation, profuse sweating, "goose flesh," and yawning. It is generally not characterized by a relapsing course and it is associated with a persistent increase in sympathetic tone (elevated temperature and increased heart rate and blood pressure) rather than a variable sympathetic tone.

Finally, I would like to discuss infectious processes that involve the CNS. Although any infectious process accompanied by high fever, hypotension, or the other characteristics of sepsis may cause delirium, I have tried to focus on agents that are also associated with a relapsing course and autonomic variability.

Borrelia recurrentis is a louse- or tick-borne spirochetal disease associated with an acute febrile illness that may have CNS involvement and that has a relapsing course. However, "relapsing fever," as it is often called, is also associated with hepatomegaly, splenomegaly, jaundice, and prominent respiratory symptoms, none of which our patient had. In addition, the afebrile period between bouts averages 7 to 9 days, much longer than the lucid period our patient experienced.

Yellow fever is an acute severe febrile illness caused by an arbovirus transmitted via the mosquito *Aedes aegypti*. It lasts approximately 3 days in its initial phase, followed by a remission lasting hours to days, and finally by recurrence of symptoms marked by neurotropic signs, coma, and death in 10% to 60% of patients. More than 50% of patients develop Faget's sign (inappropriate bradycardia, generally in the 50 to 60 range with a *full* pulse). However, yellow fever is also associated with icterus, severe musculoskeletal pain, nausea, vomiting, and gingival bleeding. In addition, neurotropic signs are generally absent until the final phases, and high fever is an unmistakable characteristic of the disease. Today, it is unheard of for a person traveling from Richmond to Philadelphia, and residing on the eastern seaboard, to acquire yellow fever without more exotic travel. In the mid to late 1800s, however, yellow fever was a scourge along the eastern seaboard. In the late 1800s, Philadelphia had one of the most severe epidemics of yellow fever recorded, with more than 24 000 inhabitants affected and almost 4000 deaths. Almost everyone who remained in the city contracted the disease, and one in six patients with yellow fever died.

Table 2. Systemic causes of delirium

- Metabolic
- Endocrine
- Nutritional
- Hematologic
- Infectious
- Toxic

Although it may seem preposterous, I mention malaria as a possibility, particularly because we are told that our patient had recently contracted cholera. Malaria coexists with cholera in some parts of the world, and since our patient's travel history is unknown, we should

explore this possibility. Of the four species of *Plasmodium* that are human pathogens, only *P. falciparum* is lethal. It may be contracted in some cholera-endemic areas and may produce recurrent or relapsing symptoms based on the cyclical release of parasites. Patients may appear well between episodes. There may be delirium in response to high fever, CNS involvement with the plasmodium, or secondary to hypoglycemia, which is not infrequent. However, there is a marked fever and tachycardia, and I do not believe these features would have been missed. In addition, there is an incubation period of only one to two weeks, which is incompatible with the exposure to cholera (if we assume travel to an endemic area).

It is noteworthy that although cholera is not now endemic to the mid-Atlantic area of the United States, in 1866 approximately 50 000 Americans died of cholera. New York, which had more than 2000 fatalities, created the first municipal board of health in the United States in response to the crisis.

We are told that our patient was brought to the hospital in October, which is interesting given that several viral encephalitides are more common in the autumn. The most notable in our area is eastern equine encephalitis (EEE). Like its relatives (western equine encephalitis, St. Louis encephalitis, and Venezuelan encephalitis), however, EEE is a progressive disease from which patients either recover or, more commonly, die. The relapsing course noted in our patient would be extremely atypical.

Another viral encephalitis that bears mentioning is rabies. Rabies encephalitis is marked by the acute onset of confusion, hallucinations, combativeness, muscle spasms, and seizures, all of which may occur in episodic fashion. Between episodes, patients may be calm and lucid. They may exhibit marked autonomic variability with periods of tachycardia and bradycardia, profuse sweating, lacrimation, and salivation. The disease is almost always lethal; median survival from the onset of overt symptoms is four days.

Rabies may be contracted when saliva of an infected animal is directly inoculated into an open wound, usually associated with the bite of a rabid animal. Other means of virus transference have been recorded (e.g., transplantation of infected corneal material), but are rare. Our patient had no reported history of such animal exposure, and at first that factor may make rabies seem unlikely. In 1994, however, of 6 reported cases of human rabies in the United States, epidemiologic investigation failed to identify a clear history of animal exposure in 3.[1] From 1977 to 1994, clear evidence for animal exposure was documented in only 9 of 33 cases of human rabies (27%) in the United States. The difficulty may be due in part to the fact that rabies may have a long incubation period (up to or more than one year), depending on the size and location of the inoculum.

Human rabies may be preceded by a nonspecific prodrome characterized by generalized malaise and paresthesias or dysesthesias at the site of the inoculation. The severity and frequency of the prodrome is variable, and it is possible that patients may not even notice the symptoms.

We are told that during our patient's hospitalization, he adamantly refused alcohol and drank water only with "great difficulty." Patients with rabies characteristically develop intense, involuntary oropharyngeal and laryngeal spasms that may be provoked by attempts at drinking (hydrophobia), the sound of water (sonophobia), or stimuli as seemingly harmless as a breeze of air (acrophobia). The increased salivation and the concomitant difficulty in swallowing may lead to the "foaming at the mouth" so often mentioned.

Clinical diagnosis. In Virginia and Maryland, human rabies is fortunately rare. In Maryland, only 2 cases of human rabies have been documented since 1945, both of which were associated with bat exposures (Maryland Department of Health and Mental Hygiene, personal communication). If the information presented in the protocol is factual, I believe our patient died from rabies and that his initial exposure was distant and forgotten.

Discussion

When I first read the protocol, I was perplexed by the conspicuous lack of laboratory

and radiographic investigation. I found it unusual that the physicians should attempt to treat a patient with alcohol. I was concerned that I could not find a Baltimore Museum on Baltimore Street. I also found it unlikely that in 1995, a patient would be admitted to the hospital "for observation." Beginning to suspect that our case was not a recent one, I started to search for a more historical perspective.

On September 28, 1849, a 39-year-old American writer named Edgar Poe boarded a train in Richmond and disembarked later that day in Baltimore. He was on his way to Philadelphia, probably to finalize some business before his upcoming wedding. He was neither seen nor heard of for five more days, until October 3, when he was found semiconscious, sprawled across a broad plank laid across two barrels outside Ryan's Saloon on Lombard Street. He was said to be wearing another man's clothes, an item of information that has never been explained. He was taken to Washington College Hospital (now Church Hospital), where he was admitted under the care of Dr. J.J. Moran. Delirium and tremors preceded a coma, from which he emerged on the second day of hospitalization. He was said to be calm and lucid before lapsing again into combativeness and a coma. He died October 7, 1849. He was buried in the Presbyterian cemetery at Fayette and Greene streets on October 9, and now rests within the shadow of the Baltimore VA Medical Center.

Death and Dying
for Annie

Thank Heaven! the crisis.
the danger, is past,
And the lingering illness,
is over at last.,
And the fever called "Living"
Is conquered at last.

Edgar Allan Poe

Addendum

To the best of our knowledge, this historical case is presented as factually as possible and the writer in question is indeed Edgar Allan Poe. Although it is well known that Poe had a certain fondness for drink, it is also postulated that he was extremely sensitive to and intolerant of alcohol. Whether alcohol contributed to his death may never be known, but we congratulate Dr Benitez on a new theory regarding its etiology.

It is interesting to note that Edgar Allan Poe loved household pets, especially cats, at a time when routine animal inoculation against rabies was not available.

Joseph Costa, M.D.
Chief medical resident, University of Maryland and Baltimore VA Medical Centers, 1994-1995.

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WORTH REPEATING

"Western physicians who counsel travelers must inform them that rabies antisera are in short supply or simply unavailable in many parts of the world. Travelers and expatriates relocating to such regions should be encouraged to update and maintain tetanus and diphtheria immunizations and should consider rabies preexposure vaccinations for rabies if their stay in a region in which canine rabies is endemic will be prolonged."

Source: Wilde H, Thipkong P, Sitprija V, Chaiyabutr N. Heterologous antisera and antivenins are essential biologicals: perspectives on a worldwide crisis. *Ann Intern Med* 1996;125:233–236.

Geriatrics for the Clinician

DELIRIUM: ACUTE CONFUSIONAL STATE

Delirium is the most common cause of behavioral disturbance or confusion in the hospitalized elderly. A medical and psychiatric emergency, delirium is known by many different names including acute confusional state, organic brain syndrome, toxic psychosis, ICU psychosis, and acute encephalopathy. The following vignettes demonstrate the spectrum of behaviors that can be seen in delirium.

Case 1

Mr. J is an 80-year-old retired investment banker who was persuaded by his wife to visit the doctor because of difficulty sleeping. He said that during the past two days he had grown increasingly restless and unable to concentrate. He said the previous evening was particularly frightening because he experienced auditory and visual hallucinations, a fact which he had not told his wife. His only significant medical history was a diagnosis of benign prostatic hypertrophy.

Case 2

Mrs. S is a 64-year-old widow with a diagnosis of moderate Alzheimer-type dementia. Staff at her assisted living residence requested that she be seen because she had become increasingly less communicative during the preceding evening. Her vital signs remained normal, but she exhibited marked withdrawal that the staff viewed as "depression." The patient had numerous medical problems, including noninsulin dependent diabetes, hypertension, and breast cancer.

Case 3

Mr. L, aged 70, presented at the emergency room with intermittent weakness of his left side. A carotid duplex scan showed a tight stenosis of the right carotid artery. The patient was given anticoagulation therapy and admitted to the neurology intensive care unit. At midnight, the police were called because the patient put his fist through a plate glass window in an attempt to escape the gang that he screamed was after him. Four officers were required to restrain the now paranoid and hallucinating patient.

Diagnosis

Diagnostic criteria for delirium in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders*[1] include the following, with emphasis on identifying all potential etiologic factors:

- A disturbance of consciousness with reduced ability to focus, sustain, or shift attention.
- A change in cognition or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.
- The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
- There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by the direct physiologic consequences of a general medical condition.

Detailed history and physical examination with attention to the neurologic examination may provide additional clues to the underlying physiologic disturbance. Laboratory evaluation should be based on the individual patient and should screen for evidence of infection or other organ system dysfunction not evident on the physical examination. A chest radiograph and an electrocardiogram should be considered.

An electroencephalogram may prove helpful in documenting brain dysfunction when a clear etiology is not apparent and a question regarding the diagnosis exists. Neuroimaging and cerebrospinal fluid evaluation should be considered when appropriate (e.g., history of head trauma, suspicion of central nervous system infection).

Pathogenesis

In a recent review of available data on the neuropathogenesis of delirium, Trzepacz[2] noted the importance of both cerebral cortical and subcortical brain areas, especially the frontal, right hemisphere, and subcortical regions, including the caudate and anteromedial thalamus. A neurochemical role for acetylcholine, dopamine, serotonin, gamma aminobutyric acid, glutamate, opiates, and glucocorticoids are postulated as areas for further study.

Many medical conditions can contribute to the development of delirium. Distinguishing between risk factors, causative factors, and contributing factors can be difficult. Francis and colleagues[3] examined 50 patients with delirium and established a single etiology in 36% of cases, a probable single etiology in 20% of cases, and multiple contributing etiologies in 44% of cases. Potential etiologies may include one or a combination of the factors listed in **Table 1**.[4-6]

Management

Delirium should be considered a medical emergency. Once a diagnosis has been made, a favorable outcome depends on thorough evaluation and treatment of the underlying disturbance. A careful history with corroborating information from an involved family member or caretaker is essential in detecting the role of various over-the-counter medications, prescription drugs, and alcohol. Mental status testing with a standardized instrument such as the Mini Mental Status Examination[7] can help establish the diagnosis and help follow improvement or deterioration over time.

The foremost clinical aspect of the management of delirium is treating the underlying physiologic disturbance and providing a safe environment until the patient can adequately resume his or her prior level of functioning. Supportive care to assure adequate nutrition and hydration are essential. Behavioral interventions to diminish the risk of falls and reduce agitation, such as providing a familiar companion who can redirect and reorient the individual, should be pursued.

Pharmacologic intervention should be used when there is evidence of alcohol or benzodiazepine withdrawal or when agitation threatens the safety of the patient or staff and precludes necessary medical evaluation and treatment. Several classes of medications may be used. Choice of drug should be based on side effect profile and efficacy in each individual patient.

Neuroleptic medications such as haloperidol and droperidol are generally well tolerated. (Although haloperidol is not approved for intravenous use and droperidol is not approved for use other than anesthesia, both have been used safely in patients with delirium.) Low doses are given initially (0.5 to 1.0 mg) and titrated upward slowly, waiting 30 minutes for evidence of drug action. Side effects, which can mimic delirium, include akathisia (severe restlessness) and sedation. These should be considered if a behavioral response is not seen when dosages approach 5 to 10 mg at a time.

Benzodiazepines are favored by some clinicians for treating agitation associated with delirium. In some patients, benzodiazepine treatment paradoxically worsens agitation; in others, it can impair memory, thereby confounding attempts to reorient the patient. This author recommends using a benzodiazepine such

Table 1. Potential factors associated with the development of delirium

- medications (e.g., opiates; anticholinergic, cardiac, and antihypertensive agents)
- industrial toxins
- alcohol, illicit drugs
- metabolic disorders (e.g., cancer; hepatic, renal, endocrine dysfunction)
- neurologic disorders (e.g., stroke, tumor, head trauma)
- cardiac, vascular, gastrointestinal, or pulmonary disorders (e.g., myocardial infarction, congestive heart failure, pulmonary embolus)
- electrolyte disturbances (e.g., hypoglycemia, dehydration, nutritional deficiencies)
- postoperative states
- infections (systemic & localized)

as lorazepam for alcohol or benzodiazepine withdrawal symptoms or to augment the effects of a neuroleptic in a patient with severe behavioral disturbance.

Opiates, including morphine and meperidine, historically have been used in the management of delirium. These agents can cause and exacerbate existing delirium. Narcotics should only be used when pain control or dependence are identified as potential factors contributing to agitation.

Vignette discussion

Case 1. Mr. J acknowledged having dysuria and a burning sensation during urination. Urinalysis showed evidence of a urinary tract infection. Antibiotics were instituted, as well as haloperidol 1 mg at bedtime. When the patient returned two days later as scheduled, all symptoms had resolved.

Case 2. Mrs. S was found to be quite disoriented. She imagined herself in Paris at a luxury hotel. Physical examination showed decreased breath sounds in the left lower lobe. The patient was transferred to the hospital where a chest radiograph confirmed the diagnosis of left lower lobe pneumonia. Antibiotic therapy was initiated and the patient was assessed frequently for adequacy of diabetic control. During the next week, the delirium cleared significantly and the patient once again recognized family and friends.

Case 3. Mr. L needed restraints to safeguard his care givers. Intravenous droperidol 10 mg resulted in enough sedation to allow adequate physical assessment. Elevated blood pressure, tachycardia, and temperature of 101° alerted the clinician that a withdrawal phenomenon might be occurring. Additional history was sought from the patient's wife, who said he drank a fifth of scotch daily. Lorazepam 2 mg every 4 to 6 hours stabilized the patient's vital signs. After magnetic resonance imaging the following morning, the patient underwent carotid endarterectomy with good result. His postoperative course was marked by some confusion, but no violence or psychotic symptoms.

Summary

Many clinicians do not realize the costs associated with delirium. Francis and Kapoor[8] found that patients who had had delirium had higher two-year mortality rates and greater loss of independence than control patients. The investigators also reported a trend toward decline in cognitive performance among patients who had had delirium. Levkoff and coworkers[9] found that delirium was associated with no change in mortality, but that it was associated with prolonged hospital stays and an increased risk of institutional placement among community dwelling elderly. Poor outcomes might be avoided, in part, with early diagnosis and appropriate management of delirium.

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Imaging Case of the Month

Misdirected Cardiac Pacemaker Lead

Clinical history

A 43-year-old woman who had a cardiac pacemaker due to symptomatic sinus bradycardia presented to a community hospital emergency room with complaints of dizziness. It was determined that the current output of her permanent pacemaker was not adequate to ensure capture, and temporary pacing was instituted via a left subclavian transvenous pacing lead.

Imaging findings

A posteroanterior chest radiograph showed a single lead pacemaker in the right lateral portion of the mid chest. The pacing wire was intact and the tip was resting in the lateral portion of the right atrium. A temporary left subclavian transvenous pacing lead was also present; its tip was curled posteromedially. On the frontal view, the temporary lead approximated the course of a pulmonary arterial catheter. The lateral view, however, showed this lead directed posteriorly with the tip at the posterior-most portion of the cardiac chamber.

Diagnosis: Misdirected left subclavian transvenous cardiac pacer lead with the tip of the lead resting in the coronary sinus.

Significance: Potential for thrombosis of the coronary sinus due to the indwelling pacer lead with subsequent global venous infarction of the heart.

Discussion

Complications caused by pacemakers are usually related to the specific type of pacing device. Difficulties associated with permanent pacemakers usually result from a malfunction of the system itself (e.g., from improperly sizing the apparatus to the particular patient or output failure of the pacemaker). Fracture of the pacing lead can also occur and has commonly been associated with specific types of leads (i.e. the Medtronic 4012 lead[1]). Most complications of temporary transvenous pacemaker placement relate to the initial establishment of the central venotomy site and subsequent placement of the venous pacing lead. Examples of such adverse events include hemorrhage, pneumothorax, and misdirection of the cardiac pacing lead.

Pacemaker lead malpositioning is an unusual but treatable cause of pacemaker failure. Free-floating pacemaker leads are more likely to change position within their cardiac chambers than are leads attached to the endocardium. Temporary transvenous leads can easily be dislodged from the desired



Figure 1a. Frontal chest radiograph showing the presence of a single lead pacemaker in the right lateral portion of the mid chest; the tip of the pacing wire is in the lateral right atrium (arrow). A temporary left subclavian transvenous pacemaker is also present; the tip of the lead is curled medially (arrowhead).



Figure 1b. A lateral chest radiograph showing the temporary pacing lead curled posteriorly with its tip resting near the posterior border of the heart (arrowhead).

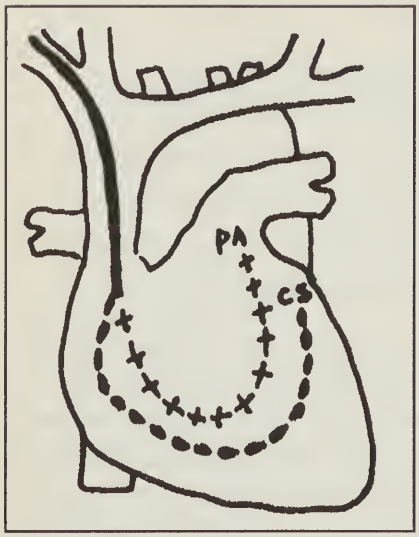


Figure 2a. Anterior schematic view of the heart and great vessels showing a venous line at the cavoatrial junction with the typical course of catheters extending into the pulmonary artery (PA) and coronary sinus (CS).

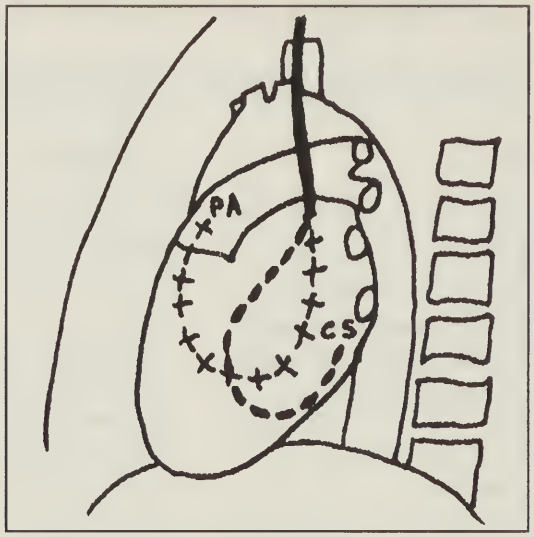


Figure 2b. Lateral schematic view showing a central venous line at the cavoatrial junction. A catheter with the tip in the pulmonary artery (PA) extends anteriorly, whereas a catheter with the tip in the coronary sinus (CS) extends posteriorly and demonstrates the characteristic anterior convexity seen with this positioning.

position if not secured in place shortly after placement. Permanent pacemaker leads can fracture and have been reported in such locations as the peripheral pulmonary arteries or the hepatic veins.[2,3]

The radiologic evaluation of cardiac pacemakers has been shown to be valuable in determining the cause of pacemaker malfunction and can also be useful in determining the integrity of the leads and their positions.[4] The identification of pacemaker lead malpositioning is obviously important in the management of patients with pacemaker malfunction and can also be beneficial in asymptomatic patients before untoward consequences develop. The repercussions of a malpositioned lead are integrally related to the location of the lead itself. Nonfractured pacemaker leads have been reported in various locations, including the left atrium (crossing a patent foramen ovale), left ventricle (after perforation of the interventricular septum), and coronary sinus.

The presence of a right atrial pacemaker lead in the coronary sinus has a typical appearance on both the posteroanterior and lateral views of a chest radiograph (**Figures 1a and 1b**). Recognition of this condition is vital given the potentially devastating complications.

The coronary sinus opens into the right atrium between the inferior vena cava and the atrioventricular orifice. It is guarded by a rudimentary nonfunctioning valve. Most of the venous blood from the heart wall drains into the coronary sinus, which is a continuation of the great cardiac vein.

The valve of the coronary sinus and the inflowing blood usually protect against entry of a pacemaker lead into this venous system. If a lead has the suspicious curved appearance on a frontal view of the chest, a lateral radiograph will help differentiate between a redundant right atrial lead located anteriorly in the pulmonary artery and a lead in the coronary sinus, which will be located posteriorly (**Figures 2a and 2b**).

Once the malpositioned lead is identified, further confirmation can be obtained via noncontrast computed tomography or transesophageal echocardiography. If the pacer lead is indeed within the coronary sinus, lead manipulation or replacement may be attempted, depending on the clinical circumstances.

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Books, Etc.

The Medical Care of Women. Phyllis L. Carr, M.D., Karen M. Freund, M.D., M.P.H., and Sujata Somani, M.D. Philadelphia, PA: W.B. Saunders; 1995. 874 pages. $95.00 (hardcover).

It was with great interest that I reviewed this new book. The medical care of women has been dealt with from many points of view in the past. Until this date, it has been fragmented into separate disciplines, including gynecology, family practice, internal medicine, adolescent medicine, geriatrics, and psychiatry. Textbooks that have centered on these different disciplines have left gaps in many of the health issues facing women today. Clinicians have often had to refer to more than one source to gain full understanding of a particular women's health care problem. *The Medical Care of Women* provides an in-depth review of many problems that are distinctively women's problems, as well as other problems that have a particular female perspective.

Distinctively female issues include gynecology, birth control, and pregnancy, which are all addressed in this book from a primary care perspective. Common gynecologic problems are covered in the book within 100 pages, providing very good review articles. More than 170 pages are devoted to issues in pregnancy such as preconception care, delayed childbearing, medication and substance use, and medical problems including hypertension, diabetes, and thyroid disease. These are not usually covered in such detail in family practice or internal medicine texts, yet they are problems that every primary care physician should know about. Although these problems are also addressed in specialty texts, they are presented in greater detail than is convenient for a primary care physician to use. Two chapters are devoted to birth control, but I was disappointed to find them rather short, with little attention to pill problems or progestin-only preparations. However, there is a fine 40-page section on menopause and health care of the elderly woman. A much needed comprehensive review of osteoporosis completes this section of the book.

General medical problems with a female prevalence or perspective include irritable bowel syndrome, gallbladder disease, headaches, and anemia. There is also a section on cardiovascular diseases, rheumatologic disorders, and endocrine disorders in women. The book ends with sections on psychosocial issues, psychological issues, and special issues such as occupational health, sports medicine, and medical care of lesbian patients and homeless women.

The text presentation is thorough yet condensed for quick reference. In addition to being useful, the book is a reasonable size of 846 pages. It can actually be removed from the shelf and held in one hand, allowing one to page through it quickly. The headings are clear and the tables and pictures are interesting and helpful. Overall, *The Medical Care of Women* is a fine addition to any primary care physician's library and could be helpful to any physician caring for women. It is a welcome text whose time has come.

Robin Bissell, M.D.
Dr. Bissell is a family practitioner in College Park, Maryland.

Cancer of the Breast. 4th ed. William L. Donegan, M.D., and John S. Spratt, M.D., editors. Philadelphia, PA: W.B. Saunders; 1995. 860 pages. $159.00 (hardcover).

The preface to this book states the reason for a fourth edition as follows: "The breast is the single, most frequent site of cancer among women in the United States, and efforts to control it are a national priority. Research is intense and rapid changes are occurring in clinical management."

The text discusses how earlier detection has been made possible through mammography, that treatment is often feasible through the application of breast-conserving methods, that systematic therapy is integral to modern management, and that the relationship between cancer and benign breast disease is becoming clearer.

Although clinical management is the focus, new chapters have been added on benign breast disorders, microscopic anatomy, oncogenes, cancer prevention, cardiothoracic problems, orthopedic problems, legal issues, pain control, and community resources for breast cancer patients.

The format is easy to read and the diagrams and illustrations are well done. The pictures and case histories make the issues discussed in the text easier to follow and understand.

This book is a good source of information for surgeons, physicians, students, and nurses, and a useful reference for anyone with particular interest or concern in breast cancer. The quality and detail of the information that has been updated with each edition since 1967 is impressive. Breast reconstruction, which has undergone tremendous growth in the past 16 years, is covered in a very informative chapter. Delayed or immediate reconstruction has become an increasingly compelling consideration for the patient and her surgeon. The principles and timing of reconstruction and types of reconstruction are described and illustrated with diagrams and photographs.

Despite the book's overall quality, some chapters are a little disjointed; for example, the chapter on the physiology of the breast describes the postpubertal breast as being inactive, while the chapter on the gross anatomy of the breast discusses the wide fluctuations in breast volume with the menstrual cycle. There is an interesting discussion of the effects of consumption of the American diet high in fats and nitrogen and transformed by hydrocarbons. Women with a high stress profile and high circulating betaglucuronidase levels have a genetic metabolism that promotes secretory activity in breast tissue as a result of endogenous catecholamines. Carcinogenic agents may be transplanted to the ducts of the breast where cancer is produced. All this in an "inactive breast."

Although this is not a book likely to be read from cover to cover in one session, it is a useful guide to breast cancer and has a good index and many additional references.

I am glad to have this book and know that it will be useful as an excellent source of information on what breast cancer is, how it is treated, how to handle medical complications and prevent legal ones, and the theories of prevention for this important disease.

Willa Brown, M.D., M.P.H.
Dr. Brown is the director of the Bureau of Personal Health, Howard County Health Department, Columbia, Maryland. ■

To Our Readers

The Editorial Board of the *Maryland Medical Journal* invites you to submit reviews of books, videos, and films of interest to the medical profession. Bringing your evaluation and analysis to the attention of your colleagues will be informative and stimulating. Send your report to: Chris Papadopoulos, M.D., Review Editor, *Maryland Medical Journal*, 1211 Cathedral Street, Baltimore, Maryland 21201.

What Your Patients MAY BE READING

- "What's That Lump? Lifesaving Advice"
  McCall's, August 1996
- "Munchausen by Proxy Syndrome"
  Saturday Evening Post, August 1996
- "SIDS Alert. New Ways to Keep Your Baby Safe"
  Parenting, August 1996
- "Colon Cancer. The Test That Can Save Your Life"
  Good Housekeeping, August 1996
- "Toughen Up Your Bones"
  Better Homes and Gardens, August 1996
- "I Love My New Thighs. Diary of a Liposuction"
  Mademoiselle, August 1996
- "Curing Obesity"
  Scientific American, August 1996
- "Special Report: Doctors Are Failing Our Tiniest Babies"
  Working Mother, July/August 1996
- "Night of the Machete. Grisly Tales of Plastic Surgery"
  Allure, August 1996
- "How to Get Your HMO to Pay"
  Redbook, August 1996
- "Reassuring Breast Cancer News"
  New Woman, August 1996
- "Creatine Fuel. New Study Proves It Works"
  Muscular, October 1996
- "Avoid Skin Cancer"
  Saturday Evening Post, August 1996
- "Health Tests That Can Save Your Life"
  McCall's, September 1996
- "Listening to Paxil. How Antidepressants Work"
  Psychology Today, July/August 1996
- "How Good Is Your Health Plan?"
  Consumer Reports, August 1996
- "The Power Vitamin. Fighting Heart Disease, Aging, and More"
  Good Housekeeping, August 1996
- "Misusing Genetics"
  Technology Review, August/September 1996
- "The Stay-Skinny Survival Secrets of Great-Looking Cosmo Girls"
  Cosmopolitan, August 1996
- "Do Diet Pills Work?"
  Consumer Reports, August 1996
- "Women's Health at Risk. The Hidden Dangers of Managed Care"
  Glamour, August 1996
- "Hidden Dangers of Allergies"
  McCall's, September 1996
- "PMS? Chronic Pain? Even Cancer? Think Yourself Healthy"
  Ladies' Home Journal, August 1996
- "The Summer Health Emergency Everyone Ignores"
  McCall's, August 1996

As physicians, our hearts have always been with our patients. Our mission saving lives.

Once this was enough.

Today, however, we are called upon to save more than our patients' lives. We are called upon to save their rights as well.

That's why I'm asking you to support the American Medical Association (AMA) as well as your state and local medical associations.

Together, we can achieve real and lasting changes. Already we have made great strides on behalf of our patients. Working together, we are educating a nation about the dangers of "gag" clauses, developing patient protection measures, and launching a wide spectrum of public health initiatives.

During Women In Medicine Month, we gratefully acknowledge the participation and support of all our female members. The AMA now has more women physicians than any other medical association. We encourage all female physicians, residents, and medical students to become members. So please, join now. Your patients' future rights and your entire profession depend on your commitment today.

WOMEN IN MEDICINE MONTH
September Is



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Nancy Wilson Dickey, MD
Chair, Board of Trustees
American Medical Association

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AMERICAN MEDICAL ASSOCIATION

The responsibilities of Maryland physicians and the role of the Board of Physician Quality Assurance to the public: a program to educate physicians

During the past year, in response to a number of complaints resulting in investigations involving boundary violation issues, inappropriate sexual conduct with patients, and over prescribing, the Board of Physician Quality Assurance (BPQA) has strengthened its program of prevention and education for practicing physicians. BPQA hired a training coordinator to design a curriculum and implement workshops and programs explaining the BPQA's purpose, mission, and role in the health care system for physicians, allied health professionals, and consumers. Using multimedia approaches and coordinating programs with physician groups, hospitals, medical schools, health maintenance organizations, insurers, and others, the training director has developed a 10-hour program to educate physicians and other health care professionals in an attempt to lessen the risk of discipline by BPQA. The purpose of the program is to prevent complaints about a physician that could have been avoided by a better understanding of the law and an increased awareness and sensitivity on the part of the physician.

The program will be offered in five 2-hour sessions beginning in the fall of 1996. According to J. Michael Compton, BPQA executive director, the course will include information on

- Maryland laws and the role of the BPQA in providing qualified health care professionals for the public;
- information on boundary violations including sexual misconduct in the practice of medicine;
- recommendations on keeping accurate and complete documentation in a patient's medical record;
- drug prescribing and protecting oneself from falling into the "drug trap";
- an explanation of the laws pertaining to the delegation of duties by physicians; and
- a close examination of medical ethics.

Israel H. Weiner, M.D., chairperson of BPQA since 1988, explained, "The goal of this program is to provide to the newly licensed physician an understanding of those provisions in the Maryland Medical Practice Act which may cause problems for health care professionals, and if not corrected, may initiate a complaint about the physician to come to BPQA for investigation and possible disciplinary action. By the end of the fifth session, the participants should understand the Maryland laws pertaining to the medical license and the penalties for violating them."

Developing the program

In preparing the training program, the training director conducted a needs assessment that included three different approaches, in addition to his personal observations. Since June 1995, every newly licensed physician in Maryland has been invited to complete an evaluation of the licensure process and asked to participate in a focus group for BPQA. Those who indicated their willingness to participate were invited to meet to help develop a needs assessment process. The purpose of this focus group was to examine information not covered in the medical school curriculum that is essential knowledge for any physician wanting to practice medicine in Maryland. BPQA also wanted to explore ways that it could provide this information. The discussion was limited to four questions.

- What do you know about BPQA?
- In which discipline areas are newly licensed physicians most vulnerable?
- How can BPQA help the newly licensed physicians in the area of prevention and education?
- What are the areas of concern that BPQA should address and in what priority?

Results of this focus group pointed out the fact that there were very few program or seminar opportunities to learn about Maryland law or the BPQA position and/or mission. The focus group developed a survey that was sent to

selected medical residents in teaching hospitals. The most informative and useful question on the survey was, *"What do you believe should be included in an educational program to familiarize newly licensed physicians with Maryland laws governing the practice of medicine and the role BPQA plays in the regulation of those medical practitioners under its jurisdiction?"*

Survey responses were grouped into the following categories:

- overview of the laws governing the practice of medicine;
- explanation of the activities that could result in being charged for violating the law;
- information on specific boundary violations;
- information about the accessibility of BPQA to answer questions about incidents and suggestions on the best method to handle the incident;
- appropriate physician/patient relationships; and
- the effect of the Americans with Disabilities Act and related laws on the investigative process by BPQA, hospitals and other facilities, or the medical community BPQA compliance analysts who are involved in the investigative process were interviewed.

Focus group participants were asked what topics they believed should be included in a program for newly licensed physicians in Maryland. Their responses were:

- BPQA's role/mission and what it does in the areas of licensure, compliance, and prevention;
- laws that cause problems;
- medical ethics;
- boundary violations, including sexual misconduct and the importance of chaperones;
- prescribing controlled drugs, over-prescribing, and drug control;
- documentation and record-keeping;
- delegation of duties;

The BPQA 10-hour program was developed using the information collected during these assessments. Although the program was initially designed for newly licensed physicians, BPQA determined that the information would be valuable to anyone practicing medicine in Maryland.

Session I: Maryland laws and the Board of Physician Quality Assurance

The first part of this session will explain the mission and composition of BPQA; types of licenses Maryland law allows; the 34 grounds for disciplinary actions; prohibited acts; and posting requirements in an office practice. Participants will receive a copy of the Maryland Medical Practice Act and a Copy of the Code of Maryland Regulations associated with the Act. In addition, a sample of the posting requirements will be in the course manual.

The second part of this session tracks case studies of the disciplinary process from the initial complaint through BPQA investigation, to BPQA action, to the final resolution of the complaint. BPQA may take a number of actions that will be explained during the course.

Session II: sexual misconduct in the practice of medicine

This session will include information about boundary crossings, boundary violations, and sexual misconduct. A new video presentation, produced by BPQA and Maryland Public Television, *Boundary Violations in the Practice of Medicine,* will be featured. The "gray areas" that can imperceptibly lead health care practitioners down the "slippery slope" will be discussed, including all the warning signs in the areas of communication, professional sexual misconduct, patients at risk, physicians at risk, and recommendations to avoid boundary crossings. The participants will develop a list of what is and what is not sexual misconduct; reviewing the lists will reveal areas that are often misinterpreted. The intent is to alleviate miscommunications between the physician and the patient that result in sexual impropriety complaints being filed with BPQA.

Sessions III & IV: documentation; drugs; and delegation of duties

A complete, accurate, concise, legible medical record is essential in the treatment of patients, especially in today's litigious society. Complete and legible documentation of a patient's treatment not only circumvents a potential malpractice action regarding standard of care, but can also explain any treatment rendered by a physician to a patient who may make a complaint to BPQA. The session on documentation will explain the procedures BPQA follows when collecting medical records. Participants will review charts, identify record problems, and make recommendations for better record keeping.

The segment of the program related to drugs will provide information about over-prescribing, what to do about prescribing for the patient with chronic pain, and information about the drug-dependent physician.

The delegation of duties portion of the program will deal with the laws and regulations associated with delegation to unlicensed personnel and to other licensed health care professionals.

Session V: a closer look at the practice of medicine and the role of BPQA.

This session takes a close look at medical ethics. Participants will have an opportunity to examine and discuss the complaints and outcomes of actual cases involving sexual misconduct, standard of care issues, billing fraud, drug abuse, and others.

Roderick G. Clark

Mr. Clark is the education and training director for the BPQA. For information about scheduling the program, please write to Mr. Clark at the Board of Physician Quality Assurance, 4201 Patterson Avenue, Baltimore, MD 21215-0095, or call 410-764-2492. ■

CLUES TO DOMESTIC VIOLENCE

- History of multiple emergency room visits for injuries
- Explanation inconsistent with the injury sustained
- Unreasonable delay between occurrence of an injury and presentation for treatment
- A companion who hovers and refuses to leave the patient, answers for the patient, or discourages history taking
- Attempts to hide injuries with makeup, jewelry, or clothing
- Injury to the face, neck, chest, breasts, abdomen, genitalia
- Injury to the defensive areas of the body (e.g., ulnar aspect of the forearm, palms of the hands, soles of the feet)
- Injuries limited to the back, legs, buttocks, and back of the head (indicating the patient was crouching)
- Injuries in various stages of healing
- Any pattern within a wound

Source: McCoy M: Domestic violence: clues to victimization. *Ann Emerg Med* 1996;27:764-765.

C·M·E·R·C update

CMERC meeting a success

The CMERC meeting held at the Turf Valley Inn and Country Club on April 25, 1996, during the Med Chi annual meeting was a big success. There were more than 60 attendees; most were representatives of Med Chi-accredited CME sponsors. Of those who completed evaluations of the program, 94% rated it as excellent or good.

The Continuing Medical Education Review Committee would like to thank those who made this program a success. David Solomon, M.D., and Deusdedit L. Jolbitado, M.D., of the CMERC; John P. Swope, M.D., and Barbara Hoevenaars of Memorial Hospital at Easton (Dr. Swope is also a member of the CMERC); V. Raul Felipa, M.D., and Jeanne Seifarth, R.N., of Sacred Heart Hospital in Cumberland; Claude Rose Feinstein, M.D., and Novera King of Montgomery General Hospital in Olney; and last but not least, Abdul Nayeem, M.D., for serving as moderator and Joan Mannion and Carol Doctrow for all their assistance in setting up the program.

The handbook is completed

The handbook which Dr. Solomon prepared, with the assistance of Med Chi staff and a small subcommittee of CMERC members, has been sent out to all of our accredited sponsors. It will be a good resource and reference and, hopefully, will be helpful to sponsors in their continuing effort to maintain accreditation of their CME programs. Dr. Solomon introduced the handbook at the April 25 meeting.

Other activities of the CMERC

During the past year, July 1995 to June 1996, the CMERC has been busier than in previous years. We conducted and acted upon 26 surveys, 25 of accredited CME sponsors and one of an initial applicant. We reviewed 18 applications, 17 reaccreditation applications and one new application. (The number of surveys does not match the number of applications, because surveys were done for applications submitted before the time period considered.) We reviewed and acted upon 22 interim reports. In addition, we conducted 13 consultations with accredited sponsors. Eleven of these consultations were on site and two were at the Med Chi offices.

Length of accreditation	4 years	3 years	2 years	1 year**
Number of sponsors	18	4	3*	1

* includes a new applicant granted two years provisional accreditation (the maximum that can be granted for initial accreditation)

** probationary accreditation due to substantial noncompliance with the Essentials.

Actions taken by the CMERC

The actions taken by the CMERC as a result of the surveys are:

Specific problems found in the surveys related to each Essential

Essential #5: 20 sponsors had problems with compliance

- The CME Committee minutes do not document the required periodic (annual) evaluation of the overall CME program.
- There is insufficient documentation in the CME Committee minutes to show that evaluation results are used in planning future CME activities.

Essential #3: 16 sponsors had problems with compliance

- Specific learning objectives are not developed or their development is not documented in the CME Committee minutes.
- The CME Committee is not involved in the development of objectives.
- The speaker(s) is not informed in writing of the activity objectives, or the speaker(s) is asked to provide objectives.
- Attendees are not informed of the objectives in advance.

Essential #6: 14 sponsors had problems with compliance

- Signed speaker disclosure forms are not completed or not on file.
- There is no signed letter of agreement with the commercial supporter(s).
- There is no written policy on disclosure.
- There is no documentation that attendees are informed of speaker's disclosed commercial relationships.

Essential #4: 13 sponsors had problems with compliance

- The CME Committee minutes do not contain sufficient documentation of planning procedures, or the planner did not document the planning steps for the activity upon which the Committee was expected to act.
- The CME Committee minutes do not document approval or other action on planned activity. Category and number of credit hours designated are not stated.

Essential #1: 10 sponsors had problems with compliance

- The mission statement is not signed and dated by the governing body and/or the CME chairperson to validate approval.
- The mission statement is not reviewed/revised periodically or the review is not documented in the minutes.

C·M·E·R·C update

Essential #2: 9 sponsors had problems with compliance

- Sources and processes of educational needs assessment are not adequately documented in the CME Committee minutes.
- There is not adequate documentation that identified educational needs serve as the basis for activity planning.

Essential #7: 6 sponsors had problems with compliance (not all sponsors undertake joint sponsorship)

- There is not sufficient documentation in the CME Committee minutes that the CME Committee was integrally involved in planning, implementing, and evaluating jointly sponsored activities.
- The nonaccredited organization did not work with the accredited sponsor from the inception of the program or it submitted a "canned plan" for approval.

Three sponsors had no deficiencies.

ACCME Regional Forum

The ACCME Regional Forum, including representatives from New Jersey, New York, and Pennsylvania, as well as Maryland, was held on June 19, 1996 at the Medical Society of New Jersey. Deusdedit Jolbitado, M.D., Joan Mannion, and Carol Doctrow represented the CMERC. This forum, one of several throughout the country, was held for the ACCME to obtain input from state medical societies regarding the changes in accreditation requirements being planned for implementation in 1997. Murray Kopelow, M.D., executive director of the ACCME, led the session. The participants at the New Jersey forum were pleased that Dr. Kopelow seemed to be very receptive to participant input and optimistic that the new requirements will simplify, rather than complicate, the accreditation process.

New designation statement required by AMA

The newest edition of the AMA's *The Physician's Recognition Award Information Booklet* dated May 1, 1996, requires changes in the wording of the Designation Statement. Designation statements for programs offering category 1 credit must be worded as follows:

> The [name of accredited sponsor] designates this educational activity for a maximum of (or "for up to") [number of hours] hours in category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

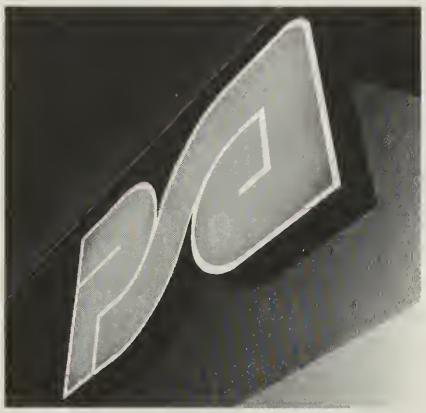
To all Med Chi-accredited sponsors

This is the third CMERC Update to appear in the *Maryland Medical Journal* during 1996 (the others appeared in January and March). Please give us your feedback, positive or negative, on this new feature. Your comments will help us better plan future columns to meet your needs. Call us at 539-0872, ext. 319 or 336 or drop us a note, addressed to CMERC at 1211 Cathedral Street, Baltimore, MD 21201.

DEUSDEDIT L. JOLBITADO, M.D.
Dr. Jolbitado is a member of Med Chi's Continuing Medical Education Review Committee ■

THE PURPOSE OF THIS COLUMN is to inform CME chairpersons, CME committee members, and all interested physicians about the activities of Med Chi's Continuing Medical Education Review Committee (CMERC) and about rules and procedures that affect the implementation of CME programs in Maryland. When appropriate, news from the Accreditation Council for Continuing Medical Education (ACCME) will be included.

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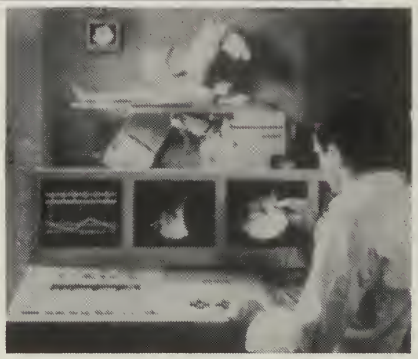
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Lipid disorders training program—advanced update, Hyatt Regency Hotel, Baltimore, MD. Credits: TBA. Fee: $150. — **Sept. 6**

Johns Hopkins hepato-biliary update, Princess Royale Oceanfront Hotel and Conference Center, Ocean City, MD. 10 Cat 1 AMA credits, 9 AAFP credits. Fee: $335/physicians; $125/residents, fellows, allied health professionals. — **Sept. 7–8**

Lipid disorders training program—basic course, credits: TBA. Fee: $250. — **Sept. 17–19**

Fourth annual progress in hematologic malignancies and bone marrow transplantation, 7.5 Cat 1 AMA credits. Fee: $125. — **Sept. 20**

Pediatrics for the practitioner update '96, 14 Cat 1 AMA credits. Fee: $300/physicians; $210/residents, fellows, allied health professionals. — **Sept. 27–28**

Third colloquium and workshops on laryngeal disorders, hands on laboratories, Renaissance Harborplace Hotel and Johns Hopkins Medical Institutions, Baltimore, MD. Cat 1 AMA credits pending. — **Sept. 27–28**

22nd Annual topics in gastroenterology and liver disease, Cat 1 AMA credits pending. Fee: $535/physicians; $285/residents and fellows; postmarked before Sept. 4: $495/ physicians, $250/residents and fellows. — **Oct. 2–4**

The third hands-on flexible sigmoidoscopy course, 9 Cat 1 AMA credits. Fee: $595/physicians; $400/residents, fellows. — **Oct. 5**

Tenth annual core content of emergency medicine: a comprehensive review, Baltimore Marriott Inner Harbor, Baltimore, MD. Cat 1 AMA, ACEP, and AAFP credits available. Fee: $975/physicians; $775/residents and fellows. — **Oct. 7–13**

The management of asthma & allergy in the workplace, Conference Center at Sheppard Pratt, Baltimore, MD. 11 Cat 1 AMA/AAFP credits. Fee: $300/physicians; $225/residents, fellows, allied health professionals. — **Oct. 17–18**

Advances in pediatric nutrition, Renaissance Harborplace Hotel, Baltimore, MD. Fee: $250/physicians, $200/residents. — **Oct. 28–30**

Men's health, Sheraton Inner Harbor Hotel, Baltimore, MD. 7.5 Cat 1 AMA credits. Fee: $150/physicians; $95/residents, fellows, allied health professionals. — **Nov. 11**

Advanced pediatric life support courses, 18.5 Cat 1 AMA credits. Fee: $595. — **Nov. 11–13, June 9–11, 1997**

Ophthalmology for the pediatrician and practitioner, Cat 1 AMA credits available. Fee: $130/physicians; $95/residents, fellows, allied health professionals. — **Nov. 15**

The first Johns Hopkins international symposium on gastrointestinal motility disorders, Harbor Court Hotel, Baltimore, MD. 14 Cat 1 AMA credits. — **Nov. 15–16**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

The Johns Hopkins Medical Institutions (continued)

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Fifth annual topics in pulmonary medicine, Marriott Inner Harbor Hotel, Baltimore, MD. 9.5 Cat 1 AMA credits. Fee: $175. Info: Larry Sauder, 410-706-4497. **Sept. 7–8**

First national conference on advancing school-based mental health services, BWI Airport Marriott Hotel, Linthicum, MD. 10 Cat 1 AMA credits. Fee: $125. Info: Marcia Glass-Siegel, LCSW-C, 410-706-0980. **Sept. 20–21**

AIDS: a challenge to primary care, Renaissance Harborplace Hotel, Baltimore, MD. 12 Cat 1 AMA credits. Fee: $225. Info: Jonathan Cohn, M.D., 410-328-8639. **Sept. 25–27**

Advances in laser application for ophthalmology, Renaissance Harborplace Hotel, Baltimore, MD. 6.5 Cat 1 AMA credits. Info: Sharon Stenhouse, 410-706-3956. **Sept. 27**

CO_2 laser blepharoplasty accreditation course, University of MD Eye Associates, P.A., Baltimore, MD. 7.25 Cat 1 AMS credits. Fee: $850. Info: Sharon Stenhouse, 410-706-3956. **Sept. 28**

First annual sexual assault forensic examiner (S.A.F.E.) training course, Holiday Inn at BWI Airport, Linthicum, MD. 38 Cat 1 AMA credits. Fee: $400. Info: Sharon Stenhouse, 410-706-3956. **Oct. 16–20**

Endocrinology & metabolism update for the practicing physician 1996, Columbus Center, Baltimore, MD. 10 Cat 1 AMA credits. Fee: $225. Info: Connie Mach, 410-328-2513 **Oct. 25–26**

The comprehensive management of multiple sclerosis, Marriott Inner Harbor Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $100. Info: Kenneth Johnson, M.D., 410-328-6483. **Nov. 8**

Self-Directed CME Activities

Lipid management for coronary heart disease: a proven hypothesis (audio tape and test), 1 Cat 2 AMA credit. Expires 10/96. Info: TJN Communications, Inc., 609-497-9743.

Drug-drug interaction: focus on antidepressants (Monograph w/response test), 2 Cat 1 AMA credits. Expires 10/96. Info:Clinical Communications, Inc., 203-629-2555.

Disease management of lipid disorders (audio tape and test), 1 cat 2 AMA credit. Expires 6/97. Info: Sharon Stenhouse, 410-706-3936.

University of Maryland School of Medicine (continued)

CD-ROM-based interactive multimedia radiology teaching file for Mac or PC w/ single user licenses (SUL), site license (SL), or multi-site license (MSL), 60 Cat 1 AMA credits. Expires 4/98. Fee: $149/SUL, $395/SL, $595/MSL. Info: Lorraine Smith, 410-528-8502. — **July 29–Aug. 2**

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956. — **Oct. 24–26**

Miscellaneous

1996 semiannual meeting of the Medical and Chirurgical Faculty of Maryland, at the Sheraton Fontainebleau Resort and Conference Center, Ocean City, MD. Cat 1 AMA credits available. Fee: free to members. — **Sept. 6–8**

Immunization update 1996, sponsored by the Centers for Disease Control and Prevention (CDC) Atlanta and broadcast live to sites over the Public Health Training Network. The Center for Immunization, Maryland Department of Health and Mental Hygiene will host. CME credits available. Info: Sandra Kash, R.N., 410-767-6679. — **Sept. 19**

Sixth national resident's forum. Managed care and graduate medical education—are they mutually exclusive?, Hyatt Arlington, Arlington, VA. Sponsored by the National Consortium of Resident Physician Organizations and the Health Resources and Services Administration. Info: Peggy Sweitzer, 301-907-3844. — **Sept. 21–22**

Psychiatric aspects of disasters, Sheppard Pratt Education Center, Towson, MD. 4 Cat 1 AMA credits. Fee: $50/health care professionals; $30/ residents. Info: Molly Neth, 410-625-0232. — **Sept. 28**

Topics in clinical rheumatology: The Mary Betty Stevens, M.D., Memorial arthritis update for family practitioners, internists, orthopedists, rheumatologists and other primary care providers, Sheraton Baltimore North, Towson, MD. Fee: $50. Info: J. Karen Krug, 410-602-0160. — **Oct. 4**

Second annual conference for stroke survivors and caregivers. Empowering the stroke survivor, Sheraton Baltimore North, Towson, MD. Sponsored by the American Heart Association, Maryland Affiliate. Fee: $20/person, $30/couple. Info: Lora Wong, 410-685-7074. — **Oct. 5**

The management of asthma: the latest developments for the primary care physician, Washington, DC. 5 Cat 1 AMA credits. Info: 800-338-4721. — **Oct. 19**

New techniques and concepts in cardiology, sponsored by the American College of Cardiology, Hyatt Regency Capitol Hill, Washington, DC. 16 Cat 1 AMA credits. Info: 800-253-4636, ext. 695. — **Oct. 24–26**

10th Annual interface: Medicine & psychiatry, St. Joseph Medical Center, Towson, MD. 6 Cat 1 AMA credits. Fee: $60. Info: 410-337-3937. — **Nov. 2**

Surveillance of the vaccine-preventable diseases, a Public Health Training Network Satellite Video conference, sponsored by the Centers for Disease Control, and Prevention, the National Immunization Program, the Council of State and Territorial Epidemiologists, the National Association of County and City Health Officials, and the Public Health Training Network. The Center of Immunization, Maryland Department of Health and Mental Hygiene will host. CME credits available. Info: 410-767-6679. — **Dec. 5**

Miscellaneous (continued)

Self-Directed CME Activities

Maryland physicians' campaign against family violence, module one: domestic violence, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10.00. 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Maryland physicians' campaign against family violence, module two: child maltreatment, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10.00. 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Continuously throughout the year

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 a.m. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, Zamoiski Auditorium,Thursdays, 9:00 - 10:00 a.m. Info: 410-578-5528.

PHYSICIAN'S RECOGNITION AWARD

During June 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

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Gene F. Ashe
Richard J. Bass
Brian S. Carter
Ronald S. Chamberlain
Huell E. Connor
James J. Corcoran
Danilo R.M. Coronel
Beth R. Deacon
Subash B. Duggirala
John C. Elkas
Philip P. Felipe
Edward J. Feroli
Morton F. Goldberg
Mitchell H. Grayson
Roy P. Habib
Martin Y. Heshmat
La Floyd H. Hobbs
Carol G. Hooper
Edwin K. Huang
Hiro Tu-Po Huang
Jean C. Hundley
Gerald S. Johnston
Deusdedit L. Jolbitado
John F. Keiser
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Charles W. Kinzer
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Shannon P. Pryor
Bannister L. Raines
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John C. Seymour
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DHMH Maryland Department of Health & Mental Hygiene

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EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

201 West Preston Street, Baltimore, Maryland 21201 (410) 767-6700

September, 1996
Selected Communicable Diseases in Maryland in 1995
(Continued from July & August, 1996)

MENINGITIS, VIRAL (ASEPTIC) (325)
6.4/100,000 (U.S. - N/A)

The 1995 total of 325 cases is an adjustment from the 323 shown in Table 1 (July 1996 issue). This is an increase of 33% from the 244 cases reported in 1994. The highest number of cases (57) was observed in Montgomery County. The highest rate (24.1/100,000 population) was observed in Caroline County. More than half (50.8%) of the cases occurred between July and September.

The ratio of male to female cases was 0.9:1. The ratio of whites to non-whites was 2.7:1; for 22 (6.8%) cases, race was unknown. Age-related incidence was highest (14.3/100,000 population) in the birth to 4 years age group; most (85.2%) of the 54 cases in that group occurred in children less than 1 year old. The etiology was reported for only 19 cases: 6 echovirus, 5 herpes virus, 4 enterovirus, and 4 coxsackievirus.

MENINGOCOCCAL DISEASE (42)
0.8/100,000 (U.S. 1.1/100,000)

The number of cases reported increased by 71% from 28 cases reported in 1994 to 42 cases in 1995. Prince George's County (8), Montgomery County (7), and Baltimore City (6) accounted for 50% of the reported cases. The highest rate (4.0/100,000 population) was observed in Allegany County. More than half (52.4%) of the cases occurred between March and June.

The ratio of male to female cases was 1.2:1 and the ratio of whites to non-whites was 1.7:1; for 2 (4.8%) cases, race was unknown. The highest incidence, 3.4/100,000 population, occurred in the 15-19 age group followed by the 80+ age group (2.5/100,000). In the birth to 4 years age group the incidence was 2.1/100,000, with 6 of the 8 cases occurring in those less than 1 year of age. Twenty of the cases presented with meningococcemia, 19 with meningitis, 1 with arthritis, 1 with pneumonia, and 1 with epiglottitis. There were 4 deaths among the 42 cases, for a case fatality rate of 9.5%.

MUMPS (41)
0.8/100,000 (U.S. 0.3/100,000)

The 1995 case total was the third lowest total on record since record keeping began in 1920, continuing a downward trend in mumps incidence since 1991. No cases were reported from 10 of 24 jurisdictions. Of the 29 cases

with a laboratory status, 9 (31%) were laboratory confirmed.

PERTUSSIS (49)
1.0/100,000 (U.S. 1.6/100,000)

The number of cases reported decreased by 7.6% from 53 cases reported in 1994 to 49 cases in 1995. The trend over the past 10 years is shown in Figure 8. The number of cases by jurisdiction in 1995 is shown in Table 1 (July 1996 issue). There were no outbreaks.

The ratio of male to female cases was 1:1. The ratio of white to non-white cases was 1.9:1. Ages ranged from 19 days to 48 years (median age three months). Thirty-two cases (65%) were less than one year, including two newborns (4%) and 28 (57%) who were one to five months old.

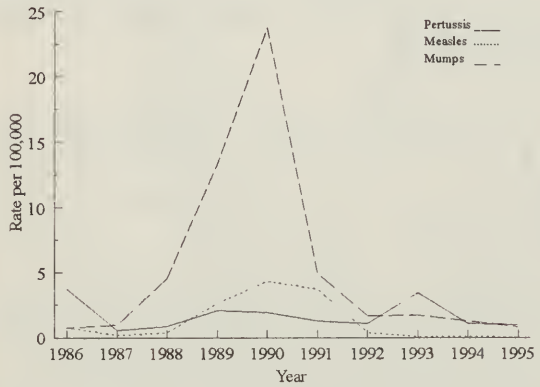


Fig 8. Measles, mumps and pertussis. Incidence, Maryland, 1986 - 1995.

The following symptoms were reported: paroxysmal cough (43, 88%); post-tussive vomiting (29, 59%); whoop (27, 55%); and apnea (16, 33%). No deaths were reported. Sixteen (33%) of the cases were culture confirmed; four (25%) of the culture confirmed cases were also DFA positive.

ANIMAL RABIES (442)
(U.S. 6617)

By 1993 all Maryland jurisdictions had become involved in the ongoing epizootic of raccoon rabies. The trend in animal rabies for the past 15 years is shown in Figure 9.

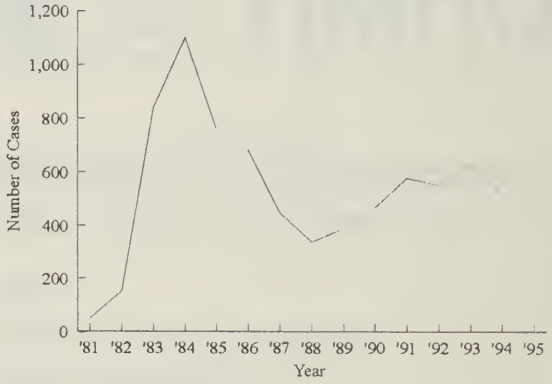


Fig 9. Animal rabies. Cases reported, Maryland. 1981 - 1995.

In 1995, 442 (8.5%) of the 5174 animals submitted for laboratory examination were rabies positive. Rabies in 1995 decreased by 15% compared to 1994 (520). Raccoons continue to be the most frequent laboratory confirmed rabid animal (74%). Spillover species reported with rabies are: skunk (39, 9%), fox (36, 8%), cat (17, 4%), cow, groundhog, dog, horse, and opossum (each <1%). However, other wild, domestic, and exotic animals can be a source of infection. Bat rabies which is unrelated to the raccoon epizootic occurred in 10 (2%) of positive animals. The last human case of rabies reported in Maryland resulted from a bat bite in 1976.

Stray and unwanted cats are a major concern for rabies transmission because they can spread the virus to domestic animals and are frequently handled by humans. The goal for the Center of Veterinary Public Health is to reduce the cases of rabies in cats, dogs, and ferrets through rabies vaccination.

ROCKY MTN. SPOTTED FEVER (36)
0.7/100,000 (U.S. 0.2/100,000)

Thirty-six laboratory confirmed cases of

RMSF were reported in 1995. The incidence rate/100,000 population increased from 0.4 in 1994 to 0.7 in 1995. Cases were reported from 13 counties, ranging from Allegany County in Western Maryland to Wicomico County on the Eastern Shore. The highest incidence rates were reported from Saint Mary's (19.8), Caroline (6.9), and Dorchester (6.6) counties.

Onsets occurred throughout the year. Twenty-eight cases (78%) had onsets between May and August; July was the peak month with 9 cases (25%). The age of cases ranged from 4 to 75 years (median 37 years). The ratio of male to female cases was 0.7:1. Among the 35 cases where race was identified, 34 were white. Among 35 cases where hospitalization status was reported, 13 cases (37%) were hospitalized; no deaths were reported. Information on symptoms was incomplete. Thirteen cases reported a tick bite or attachment within 14 days of onset, 7 reported exposure to a tick infested area (although all Maryland jurisdictions harbor the principle tick vector, *Dermacentor variabilis*), 7 reported neither of the above exposures, and no exposure information was available for 9 cases.

It should be noted that a number of reported cases had single IFA titers of 1:64 or 1:128; some of these cases had relatively mild clinical signs and symptoms. This may account for the increase in the number of cases reported in Maryland and in Saint Mary's County in particular. There were a few clinically classic RMSF cases that could not be counted since they were not laboratory confirmed (convalescent titers were not collected).

SALMONELLOSIS (1215)
24.1/100,000 (U.S. 17.8/100,000)

The trend of reported salmonellosis over the past 10 years is shown in Figure 10. After a steady decline in the number of cases reported from 1987 to 1992 the trend appears to be reversing with a 13.5% increase between 1993 and 1994, and a 4.1% increase in 1995. Incidence of disease in 1995 peaked in the warmer months, with 48% of onsets occurring between June through September.

There were 15 outbreaks of salmonellosis reported by nine counties, all reported as resulting from foodborne transmission. The outbreaks resulted in 34 laboratory confirmed cases and 70 epidemiologically linked cases.

The male to female ratio was 0.9:1. The ratio of whites to non-whites was 1.7:1 (17% had unknown race). The highest overall rate of infection (98.7/100,000 population) was in children in the birth to 4 years age group. In adults the highest rate was in 30-39 year olds 20.1), followed by 70-79 year olds 19.8).

Of the 845 (70%) isolates for which the serotype was available, 403 (48%) were *S.* Enteriditis (compared to 39% in 1994, 34% in 1993, and 40% in 1992). The four other most frequently reported serotypes were: *S.* Typhimurium (182, 22%), *S.* Newport (44, 5%), *S.* Heidelberg (32, 4%), and *S.* Muenchen (21, 3%).

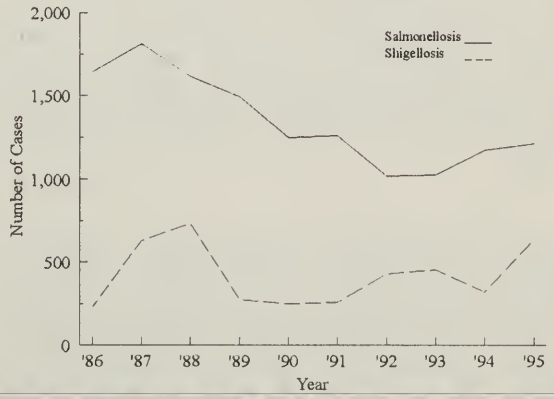


Fig 10. Salmonellosis and shigellosis. Cases reported, Maryland, 1986 - 1995.

SHIGELLOSIS (639)
12.7/100,000 (U.S. 12.3/100,000)

The number of reported cases of shigellosis by jurisdiction is shown in Table 1 (July 1996 issue). Seventy-one percent of the reported cases occurred in Baltimore City, Prince George's County, and Montgomery County, which account for only 45% of the total Maryland population. These jurisdictions also reported three of the four highest annual rates/100,000 population -- 26.7, 24.0, and 14.9, respectively. Talbot County reported an annual rate of 18.4/100,000 population. The trend in the number of cases reported over the last 10 years is shown in Figure 10. The number of cases reported in 1995 rose sharply (98%) from that reported in 1994 (323). In 1995 there were 7 outbreaks of shigellosis reported from 4 jurisdictions. The outbreaks occurred in 2 day care centers, 2 institutions, 1 restaurant, 1 school, and 1 private home. These outbreaks resulted in 20 laboratory confirmed cases and an additional 53 epidemiologically linked cases.

The ratio of male to female cases was 0.9:1. The ratio of cases among whites compared to non-whites was 0.9:1; the race of 101 cases (16%) was unknown. Most cases occurred among young children. The highest annual rates/100,00 population occurred in the birth to 4 years age group (41.4) and the 5-9 years age group (44.3), with a total of 324 (51%) of shigellosis cases occurring among children under the age of 10. There were no reported deaths among shigellosis cases in 1995.

Of the 586 (92%) isolates for which the species was known, 522 (89%) were *S. sonnei*, 59 (10%) were *S. flexneri*, 3 (<1%) were *S. dysenteriae*, and 2 (<1%) were *S. boydii.* A majority of the isolates tested by the DHMH laboratory has been resistant to ampicillin. Most isolates however, have been found to be sensitive to trimethoprim-sulfamethoxazole, cephalosporins, and quinolones.

SYPHILIS, PRIMARY & SECONDARY (492)
9.8/100,000 (U.S. 5.7/100,000)

Maryland reported 492 cases of primary and secondary (P&S) syphilis in 1995; this represents a 51% increase from the 326 cases reported in 1994. Figure 11 shows the trend of P&S incidence in Maryland over the past 10 years. The number of cases in 1995 by jurisdiction is presented in Table 1 (see the July 1995 issue). Baltimore City accounted for 71% of all case reports in Maryland.

The ratio of male to female cases was 1.4:1. The race of 88% of the cases was specified as non-white. Sixty-seven percent of the cases were in the 20-39 years age group.

Since 1988 all P&S and early latent syphilis cases seen in public STD clinics have been offered HIV testing. The percent of co-infection in those tested has decreased each year, from 18% (66/372) in 1988 to 7% (36/534) in 1995.



Fig 11. Primary and secondary syphilis. Incidence, Maryland, 1986 - 1995.

The number of congenital syphilis cases (24) increased 9% from 1994 (22). The following jurisdictions reported cases:

Baltimore City (11), Prince George's County (9), and one each in Dorchester, Howard, Montgomery, and Washington counties.

TUBERCULOSIS (370)
7.3/100,000 (U.S. 7.5/100,000)

The number of reported tuberculosis cases remained about the same from 1994 (362) to 1995 (370). The trend in reported cases since 1980 is seen in Figure 12. The number of cases by jurisdiction in 1995 is shown in Table 1 (July 1996 issue). Baltimore City, Montgomery County, and Prince George's County reported 26%, 28%, and 17%, respectively, of all cases in 1995. In most counties the incidence rate decreased from 1994; only rates in Howard County increased dramatically from 1.9 (4 cases) in 1994 to 5.5 (12 cases) in 1995. For decades Baltimore City had reported the largest number of tuberculosis cases in the State. However, in 1995, Montgomery County had 102 cases compared to Baltimore City's 97.

The ratio of male to female cases was 1.3:1. Rates/100,000 population were highest among Asians (68.8), followed by Hispanics (25.6), blacks (13.4), and whites (2.6). Rates increased progressively with increasing age, with the lowest among birth to 14 years (2.3) and the highest in those 65 years and older (17.4). Seven percent (25 cases) were children under the age of 15 years and 26.5% (98 cases) were 65 years and older. Foreign born cases constitute an increasing percentage of Maryland cases, 34% in 1993, 38% in 1994, and 45% in 1995.

A match of the tuberculosis and AIDS registries for 1995 identified 30 (8.4%) persons with both infectious diseases, compared to 39 (11%) in 1994, 41 (10%) in 1993, 60 (14%) in 1992, 36 (8%) in 1991, and 41 (11%) in 1990.

Drug resistance has not emerged as a significant problem in Maryland. In 1995, only 17 (5%) of the reported cases were isoniazid (INH) resistant. Four (1.1%) were resistant to at least INH and Rifampin.

Directly observed therapy (DOT), the observation by trained health care workers of every dose of medication taken, is a high priority public health strategy in Maryland. Use of DOT has increased steadily from 33% in 1992 to 80% in 1995. Maryland is first among states in the U.S. for percent of patients starting on initial four drug therapy: 80.5% in 1995.

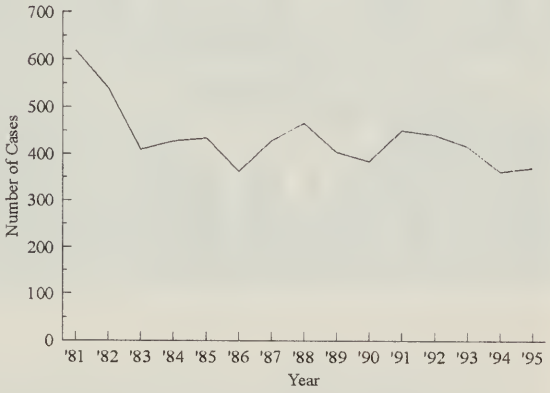


Fig 12. Tuberculosis. Cases reported, Maryland, 1981 - 1995.

TYPHOID FEVER (6)
0.1/100,000 (U.S. 0.1/100,000)

Cases of acute typhoid fever were reported from Montgomery (3), Baltimore (1), and Howard (1) counties, and Baltimore City (1).

The ratio of male to female cases was 2.0:1. Four cases were black, 1 was white, and 1 was of unknown race. Ages ranged from 18 to 41 years (median 24 years). Five of the cases were hospitalized, but no deaths occurred.

Five cases were acquired during international travel: the countries visited were Bangladesh (2), Nigeria (2), and Pakistan (1). One case reported no foreign travel, but had eaten at many restaurants in the District of Columbia metropolitan area during the usual incubation period. However, no source and no related cases were ever identified.

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Cimetidine (Tagamet) appears to be safe and effective in the treatment of recalcitrant warts. To extend anecdotal evidence that high-dose cimetidine eradicates or improves wart lesions in adults, investigators conducted an open-label study in 20 patients aged 21 to 63. Daily dosage was 30 to 40 mg/kg given orally in 3 divided doses for a total of 3 months. Of 18 patients who completed the study, 12 (67%) had complete resolution of their lesions and 3 (17%) had more than 50% reduction in the size and/or number of lesions. Cimetidine was particularly effective in patients with extensive plantar warts. Complete responders had no warts at 1-year follow-up. No adverse effects or abnormal laboratory results were detected (*Arch Dermatol* 1996;132:680–682).

A large proportion of elderly women appear to be skeptical about the potential benefits of long-term estrogen replacement therapy (ERT). In a study involving 7667 nonblack women aged 65 and older who participated in the Multicenter Study of Oseteoporotic Fractures (*Arch Intern Med* 1996;156:1293–1297), 17.4% reported currently using oral estrogens, 27.2% were past users, and 55.4% were never users. Among past users, the most commonly cited reason for discontinuing ERT (30.5%) was feeling "I didn't need it." The second most common reason was side effects (16.4%). The most common reasons given for never starting ERT was fear that it was harmful (38.1%) and feeling that it was not needed (29.5%).

Complications associated with total hip replacement (THR) include deep-vein thrombosis (DVT) and pulmonary embolism, the risk for which may persist for at least several weeks after surgery. French researchers report that antithrombotic prophylaxis with **low molecular weight heparin (enoxaparin) continued for up to 21 days after hospital discharge (35 days after surgery) appears effective in reducing the risk.** They recruited 179 consecutive THR patients who had no venogram-proven DVT at hospital discharge and who had received prophylactic enoxaparin until discharge. Of the 155 patients who met the protocol standards for efficacy evaluation 19 to 23 days after hospital discharge, the 75 patients continued on enoxaparin had a significantly lower DVT rate than the 80 patients given placebo. Three minor hemorrhagic episodes occurred in the enoxaparin group and one in the placebo group; none necessitated treatment discontinuation (*Lancet* 1996;348:224–228).

A number of reports published during the past several years have suggested that low or lowered plasma cholesterol concentrations may be associated with an increased risk for mood disturbances such as depression. To examine that hypothesis, British investigators took advantage of an ongoing, randomized, placebo-controlled trial of the cholesterol-lowering drug simvastatin in patients aged 40 to 75. They used a shortened version of the profile of mood state questionnaire to assess the mood of study subjects almost three years after initiation of the drug trial. **Although simvastatin substantially reduced patients' cholesterol concentrations, there was no evidence that the reduction was associated with adverse mood effects** (*BMJ* 1996;313:75–78).

Gene for fleas? Transmission of the bubonic plague bacillus *Yersinia pestis* by a rat flea vector depends on blockage of the flea foregut by plague bacilli. When the blocked flea tries to feed on a new host, it regurgitates infected blood into the site and transmits plague. A report published in *Science* (1996;273: 367–370) indicates that whether the flea's gut is blocked depends on the hemin storage (hms) locus in the bacillus: the first genetic locus of an arthropod-borne bacterium shown to be required for transmission-competent infection in the vector.

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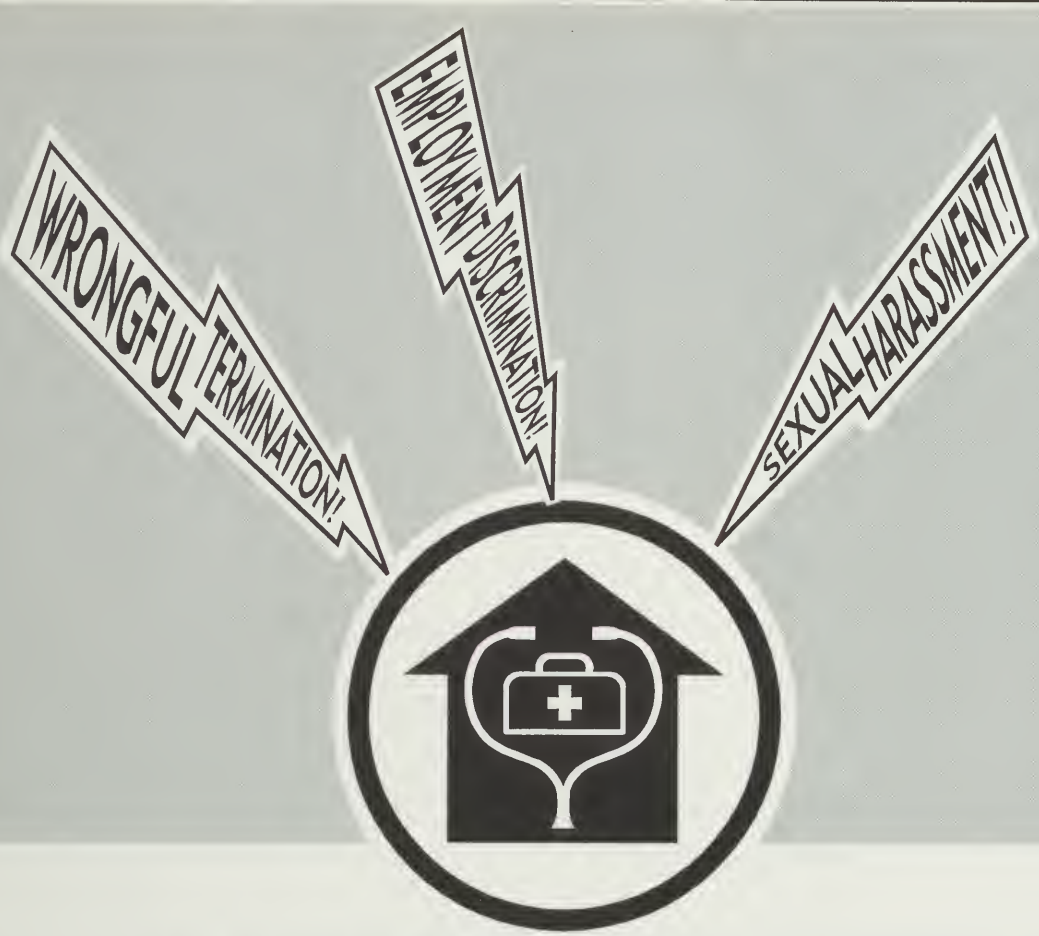
An intriguing study published in *The Journal of Trauma: Injury, Infection, and Critical Care* (1996;41:100–104) indicates that **people who do not use seat belts are likely to be uninsured and to have outstanding hospital bills.** These results provide evidence supporting an economic theory known as propitious selection, which states that people who are averse to risk will take both financial and physical precautions, while those prone to risk-taking behavior do neither. As the authors point out, the costs generated by the risk takers usually are borne by the risk averse in the form of higher taxes and higher insurance premiums.

Concern about influenza vaccine side effects is a commonly cited reason why adults fail to seek immunization. **Results of a randomized, double-blind, placebo-controlled trial in 849 adults,** however, **indicate that influenza vaccination is not associated with higher rates of systemic symptoms (fever, myalgias, fatigue, malaise, headaches).** Although vaccine recipients were 2½ times more likely to experience soreness at the injection site, it was almost always mild to moderate and lasted less than two days. Factors in both the placebo and vaccine groups associated with higher symptom reporting were female sex, age younger than 40, and the occurrence of coincidental upper respiratory tract illness (*Arch Intern Med* 1996;156:1546–1550).

"Mexican aspirin." Dipyrone, a member of the pyrazolone class of analgesics, was banned by the FDA in 1977. A drug commonly thought of in association with induction of agranulocytosis, dipyrone is readily available in Mexico, where it has been sold as a stronger form of aspirin. **A recent case report of a agranulocytosis and near-fatal sepsis due to dipyrone (*South Med J* 1996;89:612–614) underscores the fact that many patients use alternative medicine and that physicians should always inquire about patients' use of unprescribed drugs.**

Evidence for the old adage, *eat a wide variety of foods*. The so-called French paradox—the lower than expected rate of mortality from coronary heart disease in a country where the diet is rich in fat and saturated fat—has been linked to the consumption of monounsaturated olive oil, foie gras, and red wine. Noting that human eating behavior is complex and multidimensional, however, researchers from the School of Public Health at the University of Michigan, studied overall diet quality in a representative sample of 837 French adults living in Paris. They report that although few subjects consumed diets consistent with USDA dietary recommendations, particularly regarding fat content, approximately 90% scored the maximum of 5 points for dietary diversity. Methodologic and cultural factors may explain some of the differences between French and U.S. data, but the investigators conclude that diet quality and diversity may be linked to health outcomes (*J Am Diet Assoc* 1996;96:663–669).

Are you annoyed with patients who just don't get it? Perhaps they do not understand because they cannot read. A study of 60 patients with low literacy (*Arch Fam Med* 1996;5:329–334) indicates that seeking medical care can be an intimidating experience. Poor readers may be unable to understand signs and registration forms and may be prone to serious medication errors due to their inability to read labels. Because patients may be ashamed of their low literacy skills, they may be unwilling to disclose their problem. Clues, however, include heavy reliance on oral explanations, visual cues, demonstrations, and a friend or family member who looks at and interprets written material.



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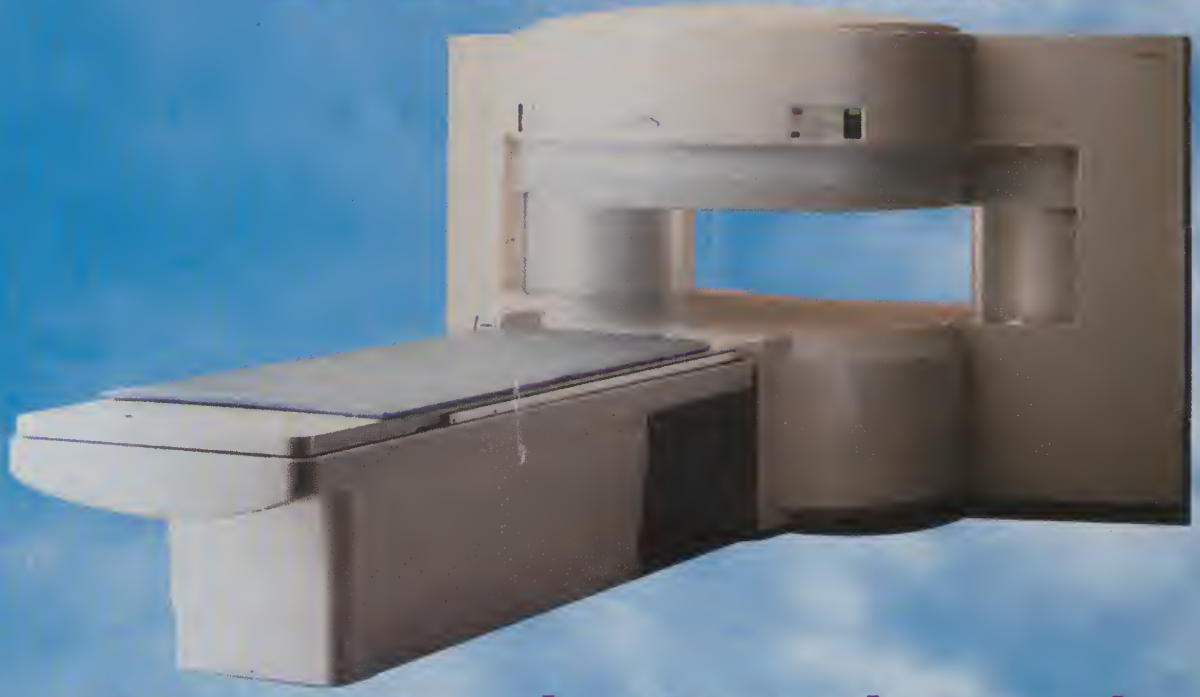
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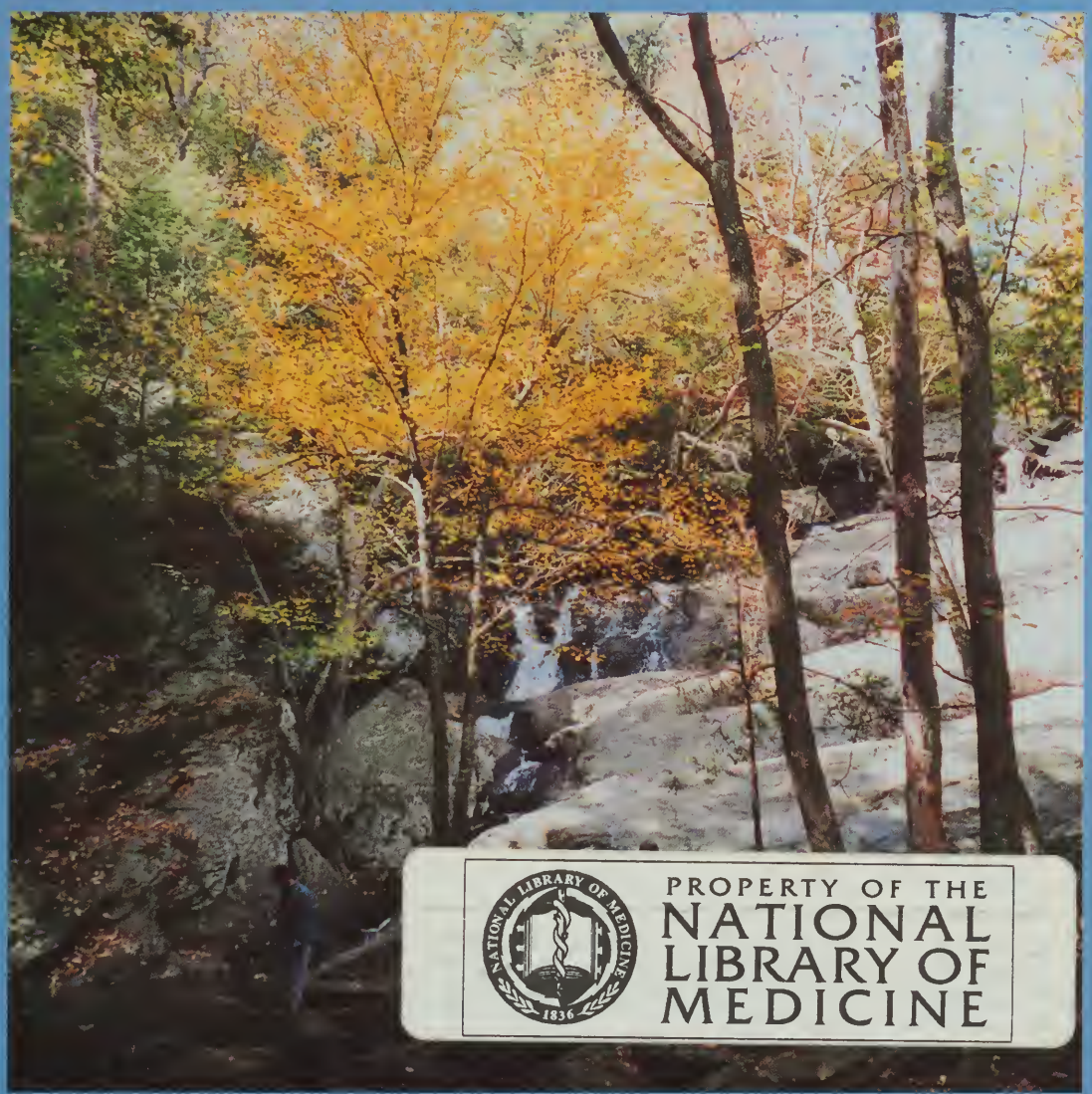
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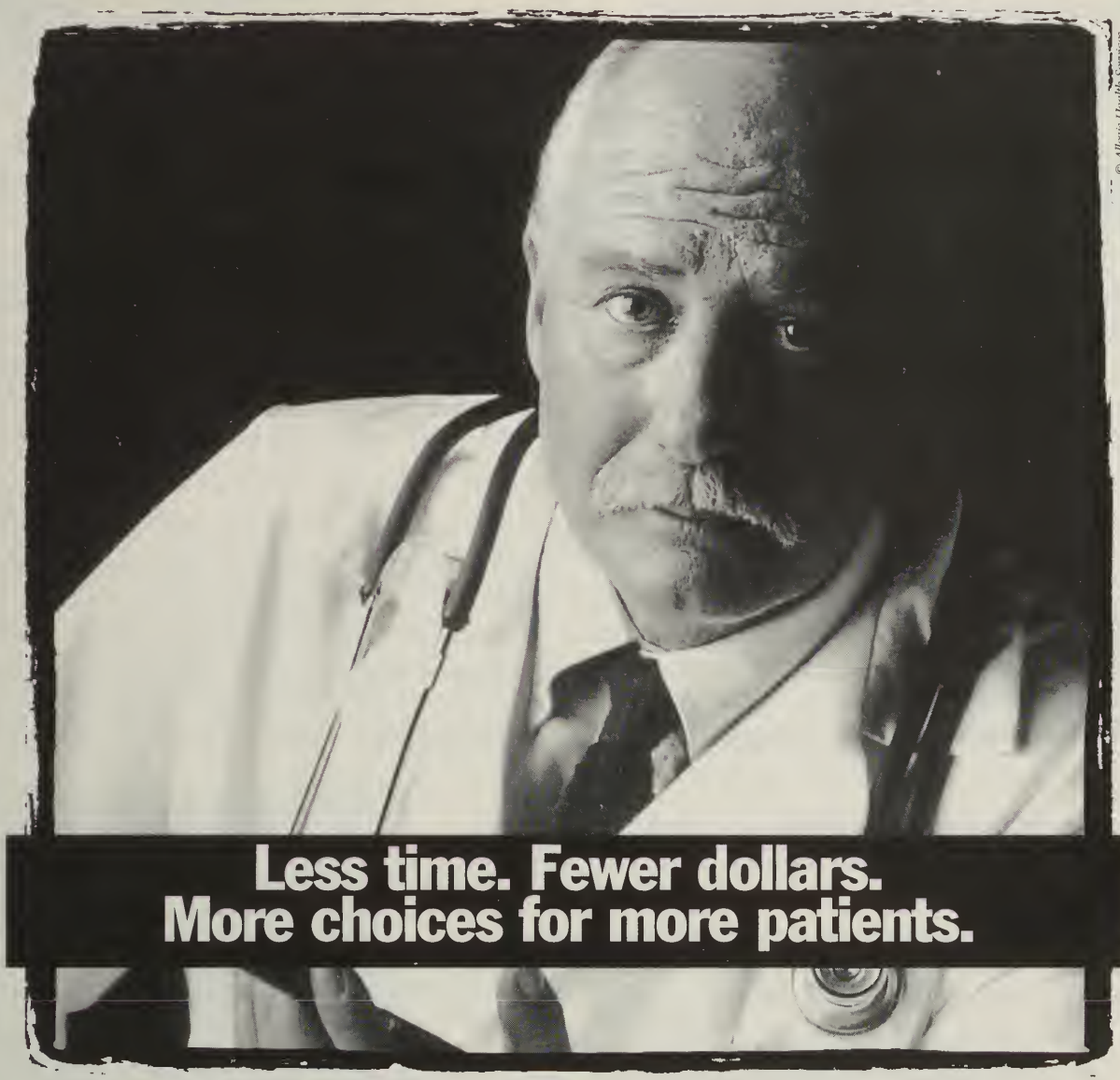
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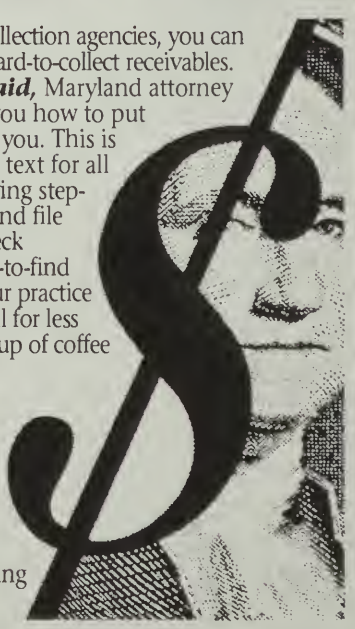
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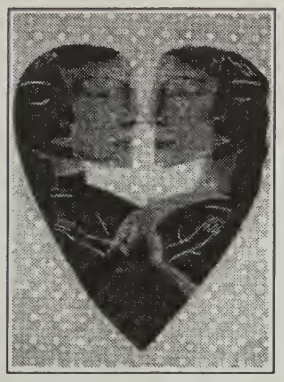
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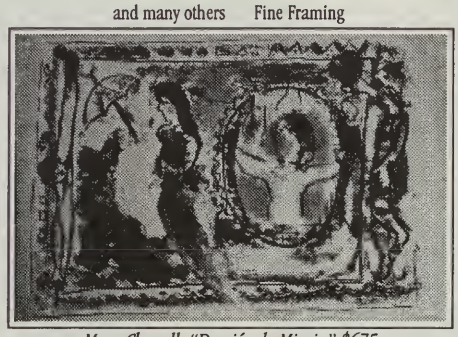
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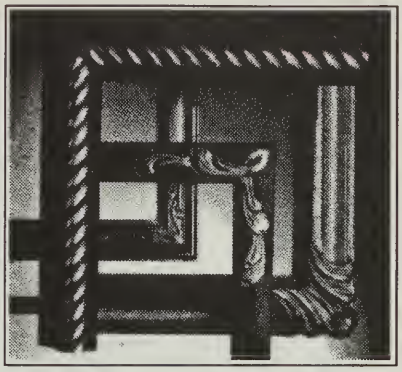
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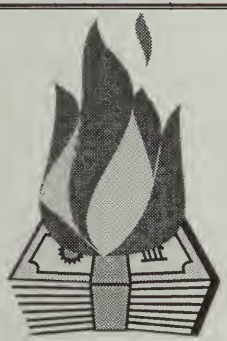
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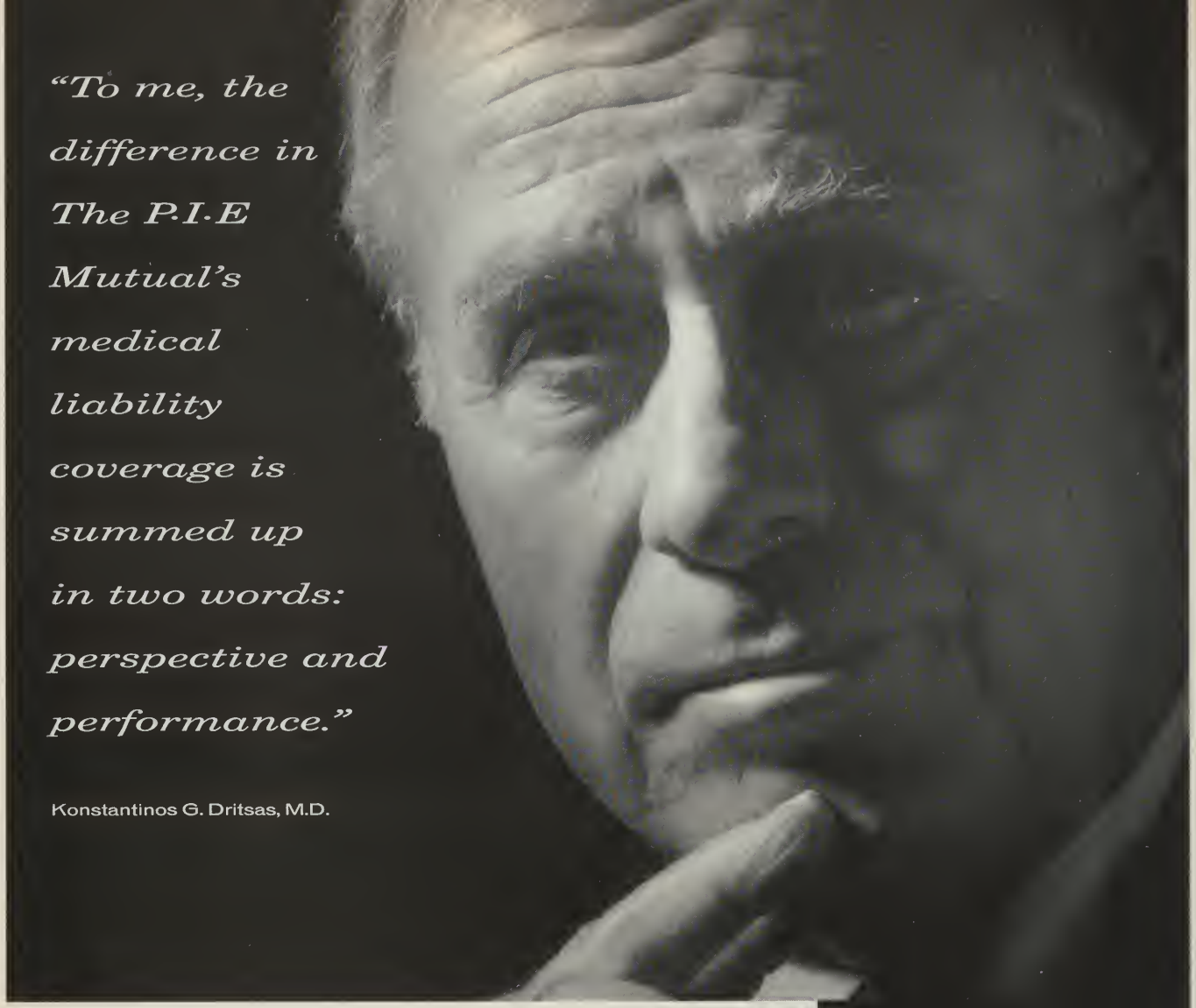
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Maryland Medical Journal October 1996

News from the President

ALEX AZAR, M.D.

Dear Colleagues,

Fall is the time when people focus on education. Last month in Ocean City, Med Chi hosted the Semiannual Meeting featuring such topics as telemedicine and teleconferencing, new approaches to the treatment of HIV-positive and AIDS patients, the role of the BPQA, minimally invasive surgery, and complementary medicine. At the meeting attendees were offered the opportunity to earn up to 12.5 CME credits. At the first House of Delegates meeting on September 6, attendees heard Robert E. McAfee, M.D., AMA past president and program consultant, address concerns and questions about the AMA's new physician accreditation program (AMAP). On September 8, they also heard Dr. John A. Knote, M.D., vice speaker of the AMA, deliver the keynote address.

On September 7, we co-sponsored *Hot Topics in Public Health* with The Johns Hopkins School of Hygiene and Public Health. The one-day program, worth 6 CME credits, provided attendees with a better understanding of the scientific underpinnnings of current public health issues and an acquaintance with a wide spectrum of current public health policies. Some of the topics covered included immunizations, air pollution, environmental justice, AIDS, and urban wildlife.

On Thursday, October 17, Med Chi in conjunction with Doctors Health System and UMBC will present *HealthCare 2001,* a day-long conference that will address the future of the health care industry as it moves into the 21st century. To be held at the Marriott Inner Harbor, *HealthCare 2001* will feature many prominent speakers from the Maryland medical community, including Martin P. Wasserman, M.D., J.D., secretary of DHMH; Cal Pierson, president of the Maryland Hospital Association; Scott Rifkin, M.D., chairman of Doctors Health; Johnathan Weiner, M.D., professor and deputy director of The Johns Hopkins University School of Public Health; and myself, to name a few. The speakers will address attendees during the morning session of the conference and the afternoon session will consist of several breakout sessions. Some of the breakout session topics include: the future of the primary care physician, the future of long-term care, managing capitation, government and health care, and the future of the specialist. Nationally recognized Princeton health care economist Uwe Reinhardt will be featured as the keynote speaker during the lunch portion of the program. Attendees can earn up to 7 CME credits for this conference.

With all these exciting opportunities in our own backyard, Med Chi members should always take advantage of the many educational offerings available to them. If you would like more details on *HealthCare 2001*, please contact Med Chi's Joan Mannion at 410-539-0872 or 800-492-1056.

Sincerely,
ALEX AZAR, M.D.
President

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News from the Chief Executive Officer

ANGELO J. TROISI, F.A.C.H.E.

Volunteers needed for Medical Student Referral Service

The Maryland State Medical Student Association, a component of Med Chi comprising students from the three medical schools in Maryland, is interested in establishing a Medical Student Referral Service (MSRS) or shadow program. The MSRS would serve as a method by which medical students in their preclinical teaching years (or clinical teaching years) can explore the depth and breadth of medicine at their own pace. It would also allow students to seek and learn about different aspects of the various fields of medicine. In addition, it would allow students the opportunity to observe the ART of medicine from physicians who are willing to donate their time to further the educational experiences of the students. Please contact Beth Schwartz, Med Chi staff liaison to the students, at Med Chi, 410-539-0872, if you are interested in investing in the future of medicine by participating in this program.

Smoke Free Maryland Coalition Legislative Committee selects new co-chairs

Med Chi members Dr. Joe Adams and Dr. Albert Blumberg are the new co-chairs of the Smoke Free Maryland Coalition Legislative Committee. The coalition, which seeks to lessen tobacco use and its associated morbidity and mortality in Maryland, seeks policy alternatives that make tobacco products inaccessible to children, protects the nonsmoking majority from occupational exposure to secondhand smoke, and allows localities to pass laws more restrictive than the state minimum. If you would like to find out more about the Smoke Free Maryland 1997 legislative agenda or about participating in this committee, please call Kari Appler at Med Chi, 410-539-0872 or 1-800-492-1056.

In conjunction with the SmokeLess States grant project at Med Chi, Smoke Free Maryland is seeking to identify interested physicians to participate in tobacco control advocacy projects. Projects will include participating in the coalition phone and/or e-mail networks, responding to legislative action requests, and ongoing projects such as the Speakers Bureau and Continuing Medical Education (CME) programs on tobacco issues. If you would like to have your name added to the Smoke Free Maryland Physician Advocacy Database, please call Kari Appler at Med Chi.

JCAHO and COLA announce cooperative agreement

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the Commission on Office Laboratory Accreditation (COLA) announced the initiation of a cooperative agreement designed to reduce the duplicative onsite evaluations of laboratories in integrated organizations surveyed under the Joint Commission's Network Accreditation Program.

Effective immediately, JCAHO will recognize and accept the accreditation process, findings, and decisions of COLA when surveying integrated delivery systems and health plans. JCAHO requires that a meaningful sample of actual care delivery sites in a network, including laboratories, be evaluated in order for the network to receive accreditation.

The Joint Commission's acceptance of COLA accreditation was based on the following criteria:

- COLA's ability to demonstrate credible, valid processes with respect to standards development, survey process, surveyor training, and the accreditation decision process;
- COLA's national scope, combined with its history of accrediting a substantial number and variety of laboratory organizations; and
- COLA's agreement to disclose organization-specific subsets of findings upon which accreditation decisions are based, including comparative performance information.

Rate for copying records increases as of July 1st

In 1994, Maryland's medical record law was amended to allow a patient or "person in interest" access to a copy of his/her medical record upon written request. Health General Article 4-304 also specified the maximum fee a physician can charge for copying the record, in addition to permiting an annual adjustment for inflation based on the Consumer Price Index.

As of July 1, 1996, physicians could begin charging $.52 per page for copying and a preparation fee of $15.45, as well as the actual cost for postage. With the exception of an emergency request from the state or local government concerning a child or adult protective services case, a physician may withhold the record until the copying fee is paid. However, malpractice carriers suggest that to ensure continuity of care, medical records should not be withheld from another physician pending payment of the fee.

With regard to the legality of re-disclosing medical records developed by another physician, many people misinterpret the law and refuse to release the portion of the medical record prepared by someone else, even when the patient wants the record in its entirety. A patient has access to the records of a prior physician, unless that physician has specifically indicated on the record that it may not be released. The BPQA advises that physicians incorporate into their release form's language the authority (by the patient's signature) to release the entire record, including portions prepared by prior providers.

Med Mutual offers physician support group meetings

Medical Mutual Liability Insurance Society of Maryland offers support group meetings for physicians who are being sued. The meetings provide the opportunity for physicians and their spouses to talk about litigation issues and other concerns. Through the meetings, physicians learn to be better participants in their case and better prepared to handle the stress of the litigation process.

If you are interested in attending, please call Med Mutual's Risk Management Services at 1-800-492-0193 to let them know you will be in attendance. The programs begin at 7:00 p.m. and last about 90 minutes. Coffee is served and there is no charge.

Dates and locations are:

Thursday, October 10
Holiday Inn - Bethesda
8120 Wisconsin Avenue

Thursday, November 7
Colony South Hotel - Clinton
7401 Surratts Road

Thursday, December 5
Medical Mutual Office - Hunt Valley
225 International Circle

Progress continues in the development of the AMA Accreditation Program (AMAP)

Successful AMAP briefing sessions have been held for medical speciality society presidents, state and county medical societies, and accreditation organizations. The response to AMAP has been very positive. At the same time, efforts must continue to assure a role for medical societies, including their credential verification organizations. The major accreditation organizations, meeting at AMA, expressed an interest in forming a consortium of accreditation organizations. The Performance Measurement Advisory Committee is beginning to define the clinical measures that will become part of AMAP in the future.

Maryland Regulatory News

Michael Preston, Med Chi general counsel

BPQA: Standard of care for medical records proposed

The Board of Physician Quality Assurance has issued a draft ruling that would declare the standard of care for content and quality of medical records. This is the first time the BPQA has proposed to establish the standard of care for any area of medical practice, and its efforts met opposition from Med Chi on both procedural and substantive grounds.

Perceiving some inconsistency among peer reviewers' judgments about whether writing scanty or illegible medical records alone constitutes a departure from standards of care, the BPQA issued a proposed declaratory ruling in August providing that the standard of care for office records "includes," but is not necessarily limited to, eight specific characteristics, and adopting Joint Commission on Accreditation of Healthcare Organization principles for hospital records.

The proposed ruling includes a statement of BPQA policy that the BPQA "presumes that if care or procedures are not recorded in a patient's record or if a record is so illegible that a reasonable physician may not decipher the record, then that procedure or that care was never rendered."

Med Chi challenged the BPQA's authority to set policy through a declaratory ruling rather than by regulation or legislation and stated that it is not sound public policy to legislate standards of care for any area of medical practice (see letter on page 823). At press time, the Board and its subcommittees had not acted to implement the proposed declaratory ruling.

BPQA: regulations again issued for physician assistant prescribing authority; telephone screening by PAs also proposed

In August, the BPQA proposed regulations that would grant physician assistants (PAs) authority to write prescriptions in hospitals, prisons, and public health clinics and facilities. Legislation containing similar provisions has failed twice

since 1993, with Med Chi and Delegate Rosemary Bonsack, M.D., a Med Chi member, leading the opposition. The proposed regulations also include new and controversial provisions that would allow PAs to perform telephone screening, a function that may place them at the front lines of HMO and hospital patient contact with physician supervision occurring by telephone only. The provisions on PA telephone screening were sprung on the provider community with no prior consultation.

Prescriptions: The proposed regulations quickly gained the attention of legislators when Delegate Bonsack requested a hearing on them before the General Assembly's Joint Administrative, Executive & Legislative Review (AELR) Committee on September 4, but the hearing was postponed to allow the parties a chance to work out their differences. Commenting on the proposed regulations, Med Chi lobbyist Geraldine Valentino said they are contrary to the policy adopted by the legislature, which twice rejected similar provisions in the past four years. Valentino also said the rules do not take into account explicit factors that Med Chi previously had shared with the BPQA as being necessary to assure adequate training and supervision for PA prescribing, and necessary for Med Chi support of the measure.

The proposed rules would allow the BPQA to authorize PAs to write prescription orders in a hospital or correctional facility for all medications except Schedule I drugs and in a public health facility for antiviral, antibacterial, and antifungal drugs. The prescription could be filled only at a pharmacy within the hospital, prison, or public health clinic, or at a pharmacy designated by the institution where the order was written; and in the case of state or local public health facilities the medication could be dispensed only be the supervising physician or at a location designated by the facility.

Educational requirements for writing medication orders are 15 hours of pharmacology education from an accredited educational institution within the past two years, and 15 Category I hours in pharmacology education within the past two years.

Screening: The regulations would allow PAs to screen patient telephone calls provided, the supervising physician has prepared written protocols that include a plan for handling emergency calls, availability of the supervising physician by telephone, requirements that the PA identify him- or herself to the caller as such, and that on request of the caller, the PA must notify the supervising physician to contact the caller. To qualify to perform telephone screening, the PA must have one year's experience as a PA and must have worked at least six months for the practice for which the service is performed.

Med Chi's Council on Scientific Affairs issued a detailed report in 1994, which was adopted by the Med Chi House of Delegates, on PA prescribing and dispensing. Authored by then-Council chair Martin P. Wasserman, M.D., it contains five specific recommendations on PA prescribing, including a baccalaureate degree for affected PAs, limits on the ratio of supervising physician to PAs, requirements for specific protocols and formularies from which PAs should prescribe, and limits on the sites where PAs can prescribe to institutions affected by medical hardship and lack of physician resources.

The proposed BPQA regulations do not comport with the Med Chi recommendations concerning education of PAs, physician-PA ratios, formulary, and site of PA practice.

BPQA: revised physician advertising regulations still pending

The BPQA has taken no formal action on draft amendments that would substantially revise regulations governing physician advertising. Intended to fill the void left by repeal of its legal authority to designate non-board certified physicians as specialists, the draft amendments would prohibit a physician from holding him- or herself out to the public as a specialist unless the physician meets certain qualifications.

Under the draft amendments, a physician can claim to be a specialist if he or she received BPQA specialty designation before October 1, 1996; or is certified by the American Board of Medical Specialties or the American Osteopathic Association; or "has completed an accredited training program that includes identifiable and substantial training in a particular field of medicine"; or has "focused the majority of [his or her] practice in a particular field of medicine for a significant period of time."

The draft amendments also contain new restrictions on the manner in which a physician may advertise specific fees for particular services or discounted fees. The rules would prohibit advertising a specific fee for a designated service if it does not include the cost of all related services that are likely to attend the advertised service. The rules also would bar advertising a discounted fee and then charging for any additional follow-up or related service within 72 hours of the initial advertised service, except for emergency treatment.

Otherwise, the amendments would eliminate existing rules dictating the specific types of information that can be placed in directory-type ads, streamlining the overall set of regulations so that all forms of advertising are treated alike by reciting only those types of information that cannot appear an any physician ad.

At its August meeting, the BPQA declined to issue the rules for publication to allow continuing

deliberation over aspects of the specialist identification provisions.

HCACC: Payment System Advisory Committee votes against price supports, caps

Insurance industry and health care provider representatives on the Health Care Access and Cost Commission's Payment System Advisory Committee squared off in July in a vote over whether the payment system will include state-mandated price supports and ceilings for practitioners.

By a one-vote margin, the committee decided not to recommend a measure that would place HCACC in the business of setting both minimum and maximum levels of practitioner reimbursement. The committee's actions are advisory only and are not binding on the full Commission.

Practitioners on the panel, including Med Chi Baltimore County Trustee Albert Blumberg, M.D., supported the concept of price controls, arguing that insurance industry domination of health care payment is driving reimbursement to levels that threaten the viability of many practitioners and encourage utilization of the least trained but best managed personnel. Insurance industry representatives and others, including HCACC Commissioner Hal Cohen, opposed the measure, arguing that the concept of the payment system is to facilitate free market negotiation of reimbursement levels.

The committee's vote was occasioned by a recommendation from its hired consultant, Center for Health Economics Research (CHER), that the payment system should include a minimum and maximum reimbursement level. CHER presented a series of recommendations to the committee earlier this year for the design and operation of the payment system law. The law was part of Maryland's 1993 health care reform legislation, known as House Bill 1359.

Having earlier agreed to CHER's recommendation that the payment system should adopt the Medicare Resource Based Relative Value Scale (RBRVS), the committee had to consider CHER's additional recommendation that there should be an allowable range of conversion factors of $35 on the low end to a ceiling of $65. If implemented, this would raise practitioner reimbursement for circumstances in which insurers pay less than $35 for a given CPT code, and would reduce it for those getting more than $65 for any code.

The payment system law authorizes HCACC to set global budgets for practitioner reimbursement and to intervene in the market and set caps on practitioner reimbursement if the budgets are exceeded, but it does not explicitly contemplate intervention to support a minimum level of practitioner reimbursement.

In testimony before the committee in June, Med Chi lobbyist Jay Schwartz expressed doubts about HCACC's authority to set a "floor" for practitioner reimbursement and raised questions about the wisdom of state price manipulation in any market. During the summer, debate has simmered among practitioner groups on the question of whether the so-called floor, as well as the payment system itself, is a good thing.

The full Commission will address the committee recommendations later this year.

DHMH: Medicaid managed care regulations issued: will HMOs play?

Regulations have been issued to implement a Department of Health and Mental Hygiene plan to move nearly all Medicaid patients into managed care. But with at least one major HMO having declared its intention not to participate as a Medicaid managed care organization (MCO), doubt has emerged about the interest of HMOs in the program.

Drafting of the regulations has been on such an accelerated schedule that interested parties had little more than a week to review and comment on the 150-page document, which DHMH issued in mid-August. DHMH heard comments on the regulations from various affected interests, including Med Chi, at an all-day hearing August 26. Med Chi's written comments on the regulations begin on page 823.

At the hearing, it became clear that HMOs are not at all comfortable with the regulations and are particularly concerned that their potential liability for payment is not defined because the benefits they would be required to offer as Medicaid MCOs is not clearly defined. The benefits portion of the regulations contains large sections that incorporate by reference provisions of other state or federal statutes or regulations, many of which are not written in language which the HMOs feel is adequate to quantify their payment obligations. In the absence of sufficiently specific benefits provisions, the HMOs said, they cannot price their product, and they hinted that they could not participate in the program.

Other concerns included a view held among practitioners and HMOs alike that the regulations verge on micro-management of the program; for example, dictating specific times within which various acts must occur such as scheduling appointments, and mandating times within which patients must be seen or spoken to on the phone.

At press time, DHMH had not yet issued its capitation rates for the program, and these undoubtedly will determine the willingness of HMOs to participate as Medicare MCOs. Although some new non-HMO organizations are expected to apply to DHMH to serve as Medicaid MCOs, successful implementation of the program will require widespread participation of currently-licensed HMOs as Medicaid MCOs.

In August, NYLCare, formerly Health Plus, declared its intention

not to participate as a Medicare MCO. NYLCare CEO Jeff Emerson said in a letter to DHMH that "the State of Maryland has designed a Medicaid managed care program that is so cumbersome, bureaucratic, costly and insensitive to the realities of the health care industry that participation in it would not be in NYLCare's or the Medicaid enrollees' best interests. The very design of the proposed system threatens the ability of participating health maintenance organizations (HMOs) and managed care organizations (MCOs) to deliver quality health care coverage economically."

DHMH announced in June that the compensation of MCOs under the proposal would be set at 90% of the existing fee for service rates. Legislation authorizing DHMH's Medicaid reform proposal provides that MCOs must maintain a loss ratio of at least 80% in the first year and 85% thereafter, meaning that at least 80 cents of every dollar paid to an MCO must be expended for actual health care services. The combination of these factors means that health care providers collectively will receive under the proposal roughly 72% (80% of 90%) of total Medicaid funds.

Under the regulations as issued, DHMH will not exercise any supervision over the reimbursement arrangements between MCOs and the health care providers with whom they contract, other than to determine that the MCO has a loss ratio of at least 80%. The legislation includes a provision that the program should seek to provide "appropriate levels of reimbursement for providers."

Legislative oversight of the regulatory process began with a DHMH briefing to the House Environmental Matters Committee on August 20, when some key legislators had not yet even received a copy of the regulations. Some potential controversy emerged concerning features of the regulation that potentially shift MCO risk back to DHMH in connection with certain rare and expensive conditions and extended hospitalization. Delegates contrasted the provisions protecting MCOs against risk from high-dollar claims against the absence of any provision in the regulations protecting health care providers against unreasonably low levels of reimbursement.



AMA News from Washington, D.C.

American Medical Association

President Clinton signs health care reform bill

On August 21st President Clinton signed HR 3103, "The Health Insurance Portability and Accountability Act of 1996." Earlier in the month both the House and the Senate adopted the conference report which accompanied H.R. 3103. Both Democrats and Republicans have claimed credit for the health insurance agreement that will enable American workers, millions of them with medical problems, to change jobs without fear of losing their coverage.

The landmark health care legislation addresses many concerns expressed by organized medicine, a brief summary follows:

Fraud and Abuse

This bill strikes a delicate balance of affording government agencies the tools they need to catch fraudulent health care practitioners, while ensuring that physicians who make innocent mistakes or billing errors will not be punished. Congress accepted two critical AMA provisions. First, only a physician who acts "knowingly and willfully" to defraud health care programs can be prosecuted for fraud offenses. Second, civil money penalties can only be imposed if a physician acted "knowingly" and with either (1) "reckless disregard for;" or (2) "deliberate indifference to" the truth of statements made in physician billing records. Furthermore, the AMA is pleased that Congress has recognized the necessity of providing guidance for physicians in the form of advisory opinions. In today's ever-changing health care delivery system, advisory opinions will apprise physicians about which specific business practices are permissible and which practices run afoul of the law. The AMA supports appropriate efforts to deter, detect, and prosecute fraudulent and abusive behavior.

Insurance Reforms

The incremental reforms contained in the bill will help working families maintain coverage if they have pre-existing medical conditions and keep their health insurance if they lose or change jobs. The AMA is particularly pleased that the bill will protect the portability of health insurance for people moving from qualified group coverage to individual coverage and guarantee the availability and renewability of insurance coverage in the small group and individual health insurance markets.

Medical Savings Accounts

In addition, the AMA is extremely pleased that the bill includes a pilot project for Medical Savings Accounts (MSAs). Specifically, the bill calls for a four-year experiment with 750,000 MSAs for the self-employed and for businesses with 50 or fewer employees where the taxpayer is also covered by a high-deductible plan. (Those who do not currently have insurance will not count against the 750,000-policy cap.) Maximum and minimum deductibles for individual and family policies are set forth in the bill, as is a cap on out-of-pocket costs. The bill also places a limit on the amount of money that can be deposited in the MSA. Employer contributions will be considered tax exclusions and individual contributions will be considered tax deductions. Distributions from an MSA for medical expenses will be generally excludable from income. At the end of the four-year trial period, Congress will have to pass legislation to extend or expand the program; however, those who already have MSAs at that time will be allowed to keep them.

Medical Liability Relief

Given its long-standing commitment to health care liability reforms, the AMA is pleased that the bill includes language to extend Federal Tort Claims Act protections to physicians who voluntarily provide health care services to the poor. The AMA believes this provision will encourage volunteerism and result in increased access to medical services for those who cannot afford it otherwise.

Mental Health Parity

The Senate-passed mental health provision, which would have required insurers to offer coverage for mental health benefits on parity with other medical benefits, was not included in the final bill mainly due to projected increases in premium costs. Due to intense pressure from the prime sponsors of this provision, there is some speculation that the mental health provision might be brought up in the Senate as a free-standing bill later in the year.

"Coalition for Quality End-of-Life-Care" established

In August, representatives of the AMA and other major national and regional health-related associations met in Chicago for a conference on patient care in the final stages of life. They established "The Coalition for Quality End-of-Life-Care," a group dedicated to protecting patients at a time when they are vulnerable, fearful, and in need of multidimensional, compassionate, competent care. The coalition will promulgate the ethics that should govern the relationship between health care professionals and patients near the end of life, including such issues as physician-assisted suicide and the danger it poses. Possible activities of the coalition include joint amicus curiae briefs, press-related statements, tangible outreach projects, and a national symposium on end-of-life issues for health reporters from around the country. All state medical societies, national medical specialty societies, and national voluntary health agencies have been invited to join the coalition. If you have questions regarding the coalition, contact Mark Wolfe at 312-464-5970.

AMA persistence brings new antitrust rules

In late August, antitrust guidelines were revised as a result of an intensive three-year campaign by the AMA aimed at removing barriers to physician joint venture networks. AMA President Daniel H. Johnson, Jr., M.D., called the revisions by the Federal Trade Commission and the Department of Justice "a significant step forward in ending the discrimination of prior agency policies against physician joint ventures." The revisions include not holding physician joint ventures "per se" unlawful because they do not reimburse physicians under a capitation mechanism. Also, agencies will now permit physician joint ventures of the size necessary to be competitive, in addition to allowing plans with 50 percent of physicians in competitive marketplaces. "Finally, it should be noted that the new antitrust guidelines represent a defeat of an intense insurance industry campaign to block changes in policy," Johnson added. "Physician networks now have a great chance to compete effectively with commercial companies, and expand the range of choices available to our patients."

AMA Web Site proves very popular

The AMA's Web Site has been available via the Internet for a little over a year. During the course of the past year, the site plateaued at about 60,000 pages viewed per week or visits—this is from a beginning of 2,000 pages viewed per week. The introduction of FREIDA, the CME Course Locator and AMA Health Insight/Physician Select has had a positive effect on the Association's exposure. By all indications, the AMA Web Site will exceed 150,000 pages viewed.

Members in the News

Mark J. Brenner, M.D., director of radiation oncology at Sinai Hospital of Baltimore, was recently selected as a recipient of the Special Appreciation Award by the Baltimore Association for Retarded Citizens Inc. (BARC). He was chosen for his outstanding support and work with individuals with developmental disabilities. Dr. Brenner received his medical degree from Tufts University School of Medicine and completed his residency in radiation therapy at Harvard Medical School. He is a member of many medical societies and organizations including the American Cancer Society, American College of Radiology, Baltimore City Medical Society, American Society of Clinical Oncology, and Mid-Atlantic Society of Radiation Oncology. Dr. Brenner is board certified in therapeutic radiology and is with the practice of Drs. Schultze, Snider & Associates, P.A.



Suresh C. Gupta, M.D., has been appointed chairperson of the Board of Physician Quality Assurance (BPQA) by Governor Parris Glendening. He served as a board member for five years. After graduating from the All India Institute of Medical Sciences in 1964, Dr. Gupta served a fellowship in chest diseases at Georgetown University in Washington, DC. He is board certified in internal and pulmonary medicine, a diplomate of both the American Board of Internal Medicine and the American Board of Pulmonary Medicine, and was recently elected a fellow of the American College of Physicians. In addition to being chairperson of the Prince George's County Medical Society's charitable foundation, he has served as president, secretary, and treasurer of the Prince George's County Medical Society as well as president of the Hindu Temple of Metropolitan Washington.



Bernard A. Heckman, M.D., a board certified gastroenterologist, has been elected president of the Flying Physicians Association. Dr. Heckman received his medical degree from the University of Virginia School of Medicine. He interned at New York Hospital before serving as a captain in the United States Air Force. He then completed his residency in medicine and gastroenterology at New York Hospital. In addition to being a member of the Flying Physicians Association since 1973, Dr. Heckman is also a member of the Montgomery County Medical Society, American College of Physicians, American Society of Gastrointestinal Endoscopy, and American Gastroenterologic Association. He is currently an active member of the Department of Gastroenterology at Washington Hospital Center in Washington, DC, and is in solo practice in Silver Spring, Maryland.

Joseph R. Martire, M.D., senior partner with Drs. Schultze, Snider & Associates, P.A., has been elected a fellow of the American College of Sports Medicine (ACSM). Dr. Martire is the first radiologist to be advanced fellowship status. He received his medical degree from the New Jersey College of Medicine in 1969 and completed his residency in diagnostic radiology at Baltimore Public Health Service and Sinai Hospital of Baltimore, where he was chief resident. Dr. Martire is a pioneer in the subspecialty area of sports medicine imaging, starting his original work in 1975 and highlighted by coauthoring the first comprehensive textbook, *Imaging of Athletic Injuries: A Multi-Modality Approach*, in the field. In addition, he has published more than 50 articles as well as a book chapter in the areas of general sports medicine and sports medicine imaging. He is certified by the American Board of Radiology and the American Board of Nuclear Medicine. Dr. Martire practices at Union Memorial Hospital, Sinai Hospital, and the New Children's Hospital, in addition to the outpatient imaging centers of Drs. Schultze, Snider & Associates, P.A.



Scott Eric Metzger, M.D., was one of 40 honorees of the AMA/Glaxo Wellcome Inc. Leadership Award Program for resident physicians, a program to build ties between organized medicine and resident physicians who have displayed a commitment to commu-

nity service. Dr. Metzger has volunteered at a suicide hotline, administered flu shots to the homeless at Boston area shelters, and helped disabled athletes compete in the Special Needs Games. Dr. Metzger earned his medical degree at Boston University and completed his residency in the department of anesthesiology and critical care medicine at The Johns Hopkins Hospital, where he currently is a fellow in pain management. A few of Dr. Metzger's other honors include U.S. Army National Scholar Athlete Award, Golden Key National Honor Society, and Garden State Distinguished Scholar.

Kenneth Spence Jr., M.D., has been named acute care medical director of Kernan Hospital in Baltimore. In his new position, he will be responsible for overseeing Kernan's surgical services. He received his medical degree from the University of Maryland School of Medicine and completed an internship and residency at the Naval Hospital in Bethesda. He spent 12 years as an orthopedic surgeon in the Navy before joining the Kernan staff. Dr. Spence has been a member of the Kernan Hospital staff since 1969 and has held numerous positions, including surgeon-in-chief, assistant medical director, and chief of orthopedic surgery.



John David Stobo, M.D., chairperson and chief executive officer of Johns Hopkins HealthCare L.L.C., was conferred mastership in the American College of Physicians in late April. Mastership is the highest level of membership attainable in the ACP, with less than 300 internists currently holding that title. Dr. Stobo earned his medical degree from the State University of New York and completed both his internship and residency at The Johns Hopkins Hospital. In addition to his positions at Johns Hopkins HealthCare L.L.C., Dr. Stobo is vice dean for clinical services and vice president of The Johns Hopkins University School of Medicine and Johns Hopkins Health System. He is a member of numerous professional medical societies and organizations, including the Association of Professors of Medicine, Baltimore City Medical Society, Institute of Medicine, American Society of Internal Medicine, and American Federation for Clinical Research.

News from the CMERC

Deusdedit Jolbitado, M.D., Member, CMERC

Joint sponsorship in continuing medical education programs

In the early 1980s, the ACCME wisely included joint sponsorship as one of the seven Essentials (Essential #7), thus providing nonaccredited organizations access to accredited CME programs. This access has been particularly important in remote or rural areas. Today, joint sponsorship is still the only way that nonaccredited organizations can provide accredited CME activities without applying for accreditation to an accrediting body. (In Maryland, Med Chi's Continuing Medical Education Review Committee is the accrediting body for intrastate sponsors.)

The two essential components of a joint sponsorship relationship are

- an accredited CME sponsor willing to take on the responsibility of joint sponsorship; and
- a nonaccredited organization willing to work closely and cooperatively with the accredited CME sponsor in all aspects of planning, implementing, and evaluating the educational activity.

Not all accredited CME sponsors enter into joint sponsorship agreements. Less than half of Med Chi's 57 accredited sponsors participate as joint sponsors. Accredited sponsors choose not to enter into joint sponsorship with nonaccredited organizations for various reasons; most commonly, they do not have the time to undertake the extra work that joint sponsorship entails, or

they do not want the added responsibility of joint sponsorship.

Some accredited sponsors are not permitted to enter into joint sponsorship relationships. They are sponsors currently on probation due to problems complying with the Essentials and newly accredited sponsors, who are required to have provisional status for one or two years.

Essential #7 requires an accredited sponsor to accept responsibility that *Standards of Commercial Support...*, as well as the *Essentials for Accreditation...* are met by the educational activities which it jointly sponsors with nonaccredited organizations and to provide evidence that it is "integrally involved" in the planning, implementation, and evaluation of each CME activity that it jointly sponsors.

The accredited sponsor is also required to maintain appropriate documentation, which should include

- an agreement between the two organizations covering the joint sponsorship;
- CME activity planning documentation including information on needs assessment, objective(s) development, faculty/speaker selection, program design, and instructional methods, etc., which may be presented on an Activity Planning Form (sample forms may be obtained from the CMERC);
- minutes of the accredited sponsor's CME committee which show that the committee reviewed the planning information developed by planners from both organizations and what action they took;
- written communication with the faculty/speaker(s) informing them of the objectives the joint sponsors hope to achieve;
- disclosure form(s) signed by the faculty, as well as signed agreement(s) with any commercial supporter(s);
- notes on any relevant telephone communications between the two organizations, or between planners and faculty or commercial supporters, filed with the CME minutes or the activity plans;
- evaluations of the jointly sponsored educational activity summarized for use in future planning.

All of these should demonstrate the accredited sponsor's integral participation in the planning, implementation, and evaluation of jointly sponsored educational activities.

Reactions to changes in the accreditation process proposed by the ACCME

When *CME Briefing* talked to a representative sampling of CME providers to get their early reactions to proposed changes, responses varied. Positive or negative, most responses seemed to focus on the idea of using outcomes measurement to evaluate the effectiveness of CME activities. Questions arose about how patient outcomes will be measured, when to measure the outcomes, and how and when to follow up. How surveyors will evaluate success is another question.

It's not too late to provide your input to Dr. Kopelow. Write to Murray Kopelow, M.D., 515 N. State Street, Suite 7340, Chicago, IL 60610; phone 312-464-2500; or fax 312-464-2586.

American Medical Association revises rules for PRA credit

The criteria that accredited CME sponsors use to designate Category 1 and 2 credits are established by the AMA. *The Physician's Recognition Award Information Booklet* dated May 1, 1996, includes a number of changes. The booklet clarifies the recent changes regarding what may be designated Category 2 by an accredited sponsor and also what may be reported as Category 2 by the physician. For example, enduring materials may no longer be designated as Category 2. All enduring materials must now meet the criteria for AMA PRA Category 1 enduring materials, as described in the May booklet.

All Med Chi-accredited sponsors received a copy of the May booklet along with their *CMERC Handbook*. Please be sure to make the booklet available to members of your CME committee. Additional copies can be obtained for a small fee from the AMA.

The purpose of this section is to inform CME chairpersons, CME committee members, and all interested physicians about the activities of Med Chi's Continuing Medical Education Review Committee (CMERC) and about rules and procedures that affect the implementation of CME programs in Maryland. When appropriate, news from the Accreditation Council for Continuing Medical Education (ACCME) is included.

News from the Alliance

Mildred Taylor, Alliance president

October 9: Save Today for Tomorrow—domestic violence awareness day

Special recognition is being given to the month of October and the problem of domestic violence in Maryland. Governor Parris N. Glendening's office issued a proclamation that Lt. Governor Kathleen Kennedy Townsend presented to the Alliance president and president-elect, Mildred Taylor and Helene Segal. Entitled "Save Today for Tomorrow," the proclamation states:

Whereas, Violence is among the leading causes of death in America, and has replaced disease as the number one killer of children . . . and, domestic violence has devastating effects on a woman's physical and emotional well-being, and her ability to care for her children; and

Whereas, Each year billions of dollars are allocated to preventable violence-related deaths and injuries which add a tremendous burden to America's health care system . . . and, the first step toward unraveling the many layers of our nation's violence problems can begin with awareness; and

Whereas, Awareness and prevention are the heart of the SAVE Program and of its cornerstone event, SAVE Today, during which physicians' spouses across the country will join efforts to Stop America's Violence Everywhere; and

Whereas, Maryland joins with the members of the Alliance to urge local citizens to search for ways we can help SAVE Today for Tomorrow.

Now, Therefore, I, Parris N. Glendening, Governor of the State of Maryland, do hereby proclaim October 9, 1996 as Save Today for Tomorrow in Maryland, and do commend this observance to all of our citizens.

Domestic violence theme to continue at Alliance House of Delegates meeting

Further recognition regarding the problem of domestic violence will be the focus at the fall House of Delegates meeting of the Alliance, October 22, when Attorney General J. Joseph Curran, Jr., speaks at our luncheon about current conditions and how the Alliance can help. The theme for this meeting will center around the new program endorsed by the AMA and AMAA called "SAVE-A Shelter." The program asks each county and state to work with a community shelter, assisting with clothing, food, and other needs. County Alliances will bring items for a "shelter shower" and the items will be distributed after the meeting.

SAVE-A Shelter is an extension of the Physicians' Campaign Against Family violence, a program started by the AMA in 1991. SAVE—Stop America's Violence Everywhere—is an ongoing program throughout Maryland and the United States that was launched by the AMAA in October 1995. It deserves our dedication and support.



Med Chi
FAX Back
410•547•0915 Survey

Five Years of Membership for the Price of Four

October 1996

At its meeting of April 27, 1996, the House of Delegates passed recommendation #4 of the Policy and Planning Committee. The recommendation instructed Med Chi to survey its members to determine their level of interest in a new method of membership dues payment, the "4 + 1" Program. Under the "4 + 1" Program, a member commits to four years of paid membership through automatic credit card deductions and receives the fifth year of membership free. The "4 + 1" Program passes on the savings of automatically renewing a physician's membership by credit card (rather than sending out an annual dues notice) to the member.

How does the "4 + 1" Program work? The member pays each year's dues in full by credit card (Visa, Mastercard, American Express, or Optima) every January of the first four years or in automatic monthly installments throughout the first four years. Members are sheltered from any dues increase during the four years of payment and receive uninterrupted benefits throughout the five-year membership period. Med Chi benefits by not having to send out renewal notices to "4 + 1" members during the five years of their membership.

In order to determine how many members would be interested in the "4 + 1" Program, Med Chi is asking each of you to take a few minutes to fill out the following survey. You can return the survey via fax to 410-547-0915, or via mail to Med Chi, 1211 Cathedral Street, Baltimore, MD 21201, Attn: Wanda Griebel.

If Med Chi offered such a program, would you sign on? ❑ YES ❑ NO

Why, or why not?

Do you think your colleagues would sign on? ❑ YES ❑ NO

Why, or why not?

Med Chi
FAX Back
410•539•6427 Survey

Call for Membership Feedback Design of Uniform Laboratory Referral Form

October 1996

Last year, the Maryland General Assembly enacted legislation requiring the Maryland Insurance Administration (MIA) to develop a uniform laboratory form. Since that time, the MIA has been working with the laboratories to develop such a form without success. The MIA and House Environmental Matters Health Subcommittee have asked Med Chi to submit proposals for the uniform laboratory form. If a uniform form cannot be agreed upon in the near future, the form is at risk of being removed from law by the laboratories during the next legislative session. Please provide responses to the following questions and fax them directly to the attention of Geraldine Valentino to the Med Chi fax at 410-539-6427 (you may remove this page or copy it for your response).

1. Is there currently a need for a uniform laboratory form? ❑ YES ❑ NO

2. If yes, what elements should be uniform on the laboratory form?

_____

_____

_____

_____

3. If a universal uniform laboratory form is not developed, but instead a hybrid form is developed with uniform sections for provider, patient and insurance information with a non-uniform section for laboratories to customize the ordering section - will such a hybrid form result in administrative savings? ❑ YES ❑ NO

4. Do you generate (by hand or computer) your own laboratory forms? ❑ YES ❑ NO

5. Are you willing to act as a consultant in the development of a uniform laboratory form?
❑ YES ❑ NO

6. If yes, please specify your name, address, telephone number and type of practice.

Name _____

Address _____

_____

Phone _____ Type of Practice _____

Addenda

August 15, 1996

Dawn Schenke Wiggins, Esq.
Board of Physician Quality Assurance
4201 Patterson Avenue
Baltimore, Maryland 21215-0095

RE: Proposed Declaratary Ruling Defining Standard of Care for Medical Records

Dear Ms. Wiggins:

On behalf of the Medical & Chirurgical Faculty of Maryland, I am writing to offer camments an the Board's prapased declaratory ruling defining the standard of care far medical records. Thank you for furnishing us with a copy af the draft, dated August 6, 1996. I understand that the Board's Practice of Medicine Committee will consider the draft ot its meeting this afternoan, and may take action at that time to recommend its odoption by the full Board.

In summary, it is our view that use of a declorotory ruling, rather than regulations, to establish Baard policy is an inappropriate use of Subtitle 3 of the Administrative Procedure Act, and therefore the prapased declaratory ruling wauld be a nullity. Moreaver, we believe and consistently have maintained that it is unwise public policy to legislate standards of care in any area, sa we oppose the Board's formulation of such standards, regardless of whether they relate to the indicotions for carotid surgery or the content af medical records.

Procedurally, the authorities cited in the draft declaratary ruling do not suppart the Baard's use of such a ruling ta establish policy. Subtitle 3 af the Administrative Procedure Act, which creates the declaratory ruling process, is intended ta offer a vehicle for interested persons to obtain the administrative equivalent of a declaratary judgment on a specific set of facts from an agency acting in its adjudicatary-enfarcement functian, nat ta allaw circumvention of the regulotion-writing process by on ogency octing in its policy-making function. It is for this reason that the statute limits the binding effect of a declaratory ruling to only the agency and the person who petitioned the agency, requesting the ruling, and it further limits the effect of the ruling to "the facts set forth in the petition." S.G. Sec. 10-305(b). Accordingly, a declaratory ruling cannot be a vehicle far setting policy because its binding effect is limited to the ogency ond the petitianer. And where, as here, na ane has petitioned the Board to request a ruling on a particular set of facts, the Board's issuance of a declaratory ruling will hove no binding effect an anyone. That declaratory rulings under Subtitle 3 ore distinctly different in purpase and effect from regulations promulgated under Subtitle 1 becomes clear from the definition of the term "regulation" at S.G. Sec. 1-101(g):

"(g) *Regulation.*—(1) "Regulatian" means a statement ar on amendment or repeal of a stotement thot:

(i) has general application;
(ii) has future effect;
(iii) is adopted by an [agency] to:
1. detoil or corry out a law that the [agency] administers;
2. govern organization of the unit;
3. gavern procedure of the [agency]; or
4. govern practice before the [agency]; and
(iv) is in ony form, including:
1. a guideline;
2. a rule;
3. a standard;
4. a statement af interpretation; or
5. a statement of policy."

The proposed declorotory ruling by its terms would have general application and future effect; it would be adopted by the Board to carry out the Board's implementation and enforcement of the Medical Practice Act, HO Sec. 14-404(a)(22); and its language is simultaneously a guide, rule, standard, statement of interpretation, and statement af policy. It meets all of the criteria to be a regulation, and therefare must undergo the regulatary process to be adopted as such, without which it is a nullity.

Substantively, we submit that the promulgotion of regulatians which legislate the standard of care in any area of practice is unsound public policy. The concept af standard af care is mare a description of an evolving ronge, or continuum, of conduct which is at least minimally acceptable than it is a statement of ideal or optimal, or even overage conduct. *Shilkret v. Annopolis Emergency Hospital,* 276 Md. 187 (1975). Legislating standards of care for any facet of medical practice necessarily freezes the standard at a given point on the continuum and at a given time. A legislated standard or protocol therefare changes the concept of standard of care to the exclusian of the entire range of conduct which varies fram the new protocol but which was previously done and was acceptable. While this may elevate the stondord of conduct for thase previously not meeting the new benchmork, it also constrains canduct that pushes the limits of existing practice and therefare impedes scientific advancement. Therefore, Med Chi consistently opposes effarts ta legislate standards af medical practice.

In this instance, the proposed standard for medical records presents mony of the hozards that attend any proposed mandated standard. Among them is the imposition of a level of detail and rigidity that may be inconsistent with actual practice, in that the non-JCAHO portion of the standards presents specific mandates, nat general principles, that may be inapplicable to particular circumstances. For exomple, proposed item (b) would appear to require a report of a "comprehensive physical examination" for each patient encounter. This presumably is not the Board's intent, and it certainly is incansistent with actual practice. But the greater the level of detoil in any mandate, the greater is the likelihood that the mandate will contravene acceptable existing practices in particular circumstances and, accordingly, sow confusion.

In addition, we submit that the procedural effect of the Board's views on medical recard-keeping also are matters of policy that must be submitted to the regulatory process. In particular, the propased ruling states that "the Board presumes thot if core or procedures are not recarded in o potient's recard ar if a record is sa illegible that a reasonable physician may not decipher the record, then that procedure ar that care was never rendered." This rule meets all the criteria to be a regulatian. The Board's position an this issue creotes an evidentiary presumption which the Board employs in its adjudicatory role, vitiating a physician's testimony that, for example, although not recorded in the chart, a particular act was performed because it is always performed under the circumstances.

Finally, we wish to underscore the comments of Med Chi's staff Peer Review Director, Stephen Johnsan, in his facsimile memo ta yau af August 13, 1996, copy attached. (Although marked "personal and canfidential", Mr. Johnson did not intend to confine that memo to your eyes only.) In it, Mr. Johnson disavows any attribution of his comments to the Peer Review Committee and, mare impartantly, any intention to express the notion, reported in the propased ruling, thot the "Peer Review Committee stated the reviewers need o standard for medical record keeping to assist in the reviews."

Thank you for your attention to our concerns.

Yours Very Truly,
T. Michael Preston
General Caunsel

September 3, 1996

Martin P. Wosserman, M.D., J.D., Secretary
Department of Health & Mentol Hygiene
201 West Preston Street
Baltimore, Maryland 21201

Re: Medicaid 1115 Waiver Implementation Regulatians

Dear Dr. Wasserman:

The Medical & Chirurgicol Faculty of Maryland, representing nearly seven thousand physicians in the state, is pleased to offer the following comments an the draft Medicaid 1115 Waiver implementation regulations.

In General: A Concern About Reimbursement

While the Medicaid patient populotion will face certain upheaval from the proposed movement to managed care, this initiotive operates less on them than on the physicians and others who do the work that is health care. It is these providers who, in addition ta doing the myriad things that attend the actual delivery of care to patients, must marshal the staff and facilities and relationships, and maney, ta moke the job possible. And in the prevailing IPA model managed care organizatian, it is they who must learn and implement the systems and protocols of the orgonization in practice, while figuring how ta da sa economically.

The issues of course vary for the different providers: for the large, busy primary care practice whose systems are well-geared for capitated HMO service, Medicaid monaged core presents concern abaut a deluge af these high-maintenance patients; for the MAC or other historical Medicaid provider it is whether the patients will still be there; for the mental health community it includes concerns about efficacy of the Specialty Mental Health Delivery System. But all share concern thot, with constant or diminished overall funding, less of the Medicaid dallar will be poid to the providers whose obligations in administering the actual care will increase.

To date we know only that the capitation rate will be obout 90 percent of fee-for-service, and that the MCOs initially must spend at least 80 percent of their compensation on actual patient care, meaning that at most only about 72 percent of the current Medicaid fee-for-service dollor will go toward patient care. At the same time, the regulations establish a variety af very specific obligations on MCOs regarding administration of potient care, which under existing IPA model practice and under the terms of the regulations themselves are the responsibility af the practitianer with wham the MCO contracts to provide the care. These obligations include such items os precise limits for scheduling of appointments far different kinds of patients, time limits for waiting in the waiting room, and protocols for non-compliant patients, all of which will be the time-consuming and castly responsibility af the practitioner. It must be remembered that wherever the regulations direct the MCO to do something that requires interaction with the patient, generally it is the practitioner and his ar her staff who must carry it out, not the bureoucracy of the insurer.

Finally, we know that the shrinking number of Maryland HMOs have expressed uncertainty about their ability to turn a profit serving the Medicaid market, and at least one large HMO has unequivocally declared that it will not participate in the program as a Medicaid MCO. Inasmuch as an HMO has only one bottom line, if its Medicaid aperations are marginal or unprofitable then providers serving that HMO, both far commercial and Medicaid business, can expect to feel further wrocheting-down af reimbursement; far we do nat expect that an HMO will absorb any Medicaid losses out of its profitable commercial business without exacting a toll on its physicians and other providers yet again. And in this context, recall that affected providers generally do not include haspitals because af the all-poyer system, meaning that the effects of HMO reimbursement compressian ore especially severe far individual practitioners.

We nate that ane of the gaals far the program stated in S.B. 750 is that it should "[s]eek to provide appropriate levels of reimbursement for providers to encaurage greater participation in the Program." H.G. 15-102.1(b)(8). In the absence of any provisian in the regulations for the Department ta supervise or otherwise intervene in the issue of the adequacy of reimbursement running from MCO to the providers, our concern is that reimbursement will be, or will become inodequote, particularly if overall funding dwindles. Accordingly, we urge the Department, as port of its ongoing analysis of the true cost ond benefit of this program, to require the MCOs in their applications, e.g. as port of 62.03(B) (16), page 26, not only to recite their intended levels af reimbursement to providers, but also to demonstrate that such levels are appropriate. In addition, the MCO's levels af reimbursement should be part of the Department's assessment of the adequacy of its network under 62.09(C).

Particular Issues

1. Definition of "Medical Necessity." (60.01(B)(65)-(68), Definitions, p.9-10)

S.B. 750 requires the Department to include a definitian af medical necessity in its quality and access standards. The regulatians define "medically necessary" to mean "directly related to diagnastic, preventive, curative, or rehabilitative treatment" (60.01(B)(67)). The statute does not cantemplate the term "medically appropriate," which is used in the regulations ond defined to be on "effective service that can be provided, taking into consideratian the particular circumstonces of the recipient and the relative cost of any alternative services which cauld be used for the some purpase" (60.01(66), p.10). The regulations typically emplay the term "medically necessary" linked together with the term "medically appropriate": i.e. "medically necessary and oppropriate."

The terms "medically necessary" and "medicol necessity" appear in the statute, *inter alia*, in connection with the obligations of MCOs to poy for certain services, such as those rendered at emergency facilities. They are qualifiers, which hold greot potential for use by an MCO ta deny payment far such ER services. It was far this reason that the legislature recognized the impartance of the defining the cancept af medicol necessity in the regulations.

Because the definition of the terms "medically necessary" and "medical necessity" becomes relevant principally in cannection with adjudications abaut payment or retrospective assessments of quality, after the care has been rendered, the standard enunciated in the regulotions accordingly should be legalistic: it shauld not attempt to influence the clinical decisions on the scene, but rather judge the medical decisian retraspectively in light af the standard af care for the same or similar cammunity.

We urge that the definition af "medical necessity" be stated in the regulations as follows: "Medical necessity" or "Medically necessary" means that, on the basis af the information reasanably available to a health care provider at the time the services are rendered, the decision of such healtth care provider to offer ond/or render medical or other care to o person is consistent with accepted standords of care under the same or similar circumstances, and for the same or similor community.

2. Capacity of Provider Network. (62.09(C)(2), Access Standards, PCPs and MCO's Provider Network, p.52-53)

The regulations create two occosians for evaluating the capacity the MCO's provider netwark:

in the MCO's application to the Department when it seeks to be qualified as an MCO (62.03(D), p.28-37), and again in the access standards (62.09(C)(2)). The information to be supplied to the Department in the application includes the expected number of enrollees to be served by each practitioner (62.03(D)(5)(h), p. 30), and a description of how the MCO will equitably distribute enrollees among its panel providers (62.03(D)(34), p. 36). Separately, the regulation's the access standards call for a DHMH assessment of the MCO's provider network using certain indicators of capacity, including:(i) each network provider's number of contracts with other HMOs or MCOs;(ii) each practitioner's ratio of Medicaid to non-Medicaid patients;(iii) the proportion of each provider's practice in the network that the MCO' enrollees represent (62.09(C)(2)). Meanwhile the access standards state that an acceptable ratio of physicians to enrollees may range from 1:200 to 1:2000.

Several concerns arise from these provisions. Regarding the DHMH assessment of the MCO's provider network capacity, it is not clear when this assessment will occur, and whether it will involve a process that is different from the one employed at the time when the MCO makes its initial application to the Department. We urge the Department to exercise close scrutiny of the applicant-MCO's network capacity, before patients are assigned, rather than afterwards; so to the extent that the regulations contemplate a two-step evaluation process, we urge that the greater emphasis occur at the application stage.

Second, the information that the MCOs are required to submit to the Department in connection with the assessment described in the access standards (62.09(C)(2)) probably is not readily available to the MCO's without having them delve into the details of the relationships between their panel providers and all other managed care entities. This inquiry on their part would appear to violate a number of confidentiality concerns of the providers, unless the providers have it readily available in a form that will not divulge their proprietary information. Thus, we urge the Department to amend these rules to state that an MCO may obtain this type of information from its panel providers only if the providers readily are able to produce it in a form that will not infringe upon the confidence of the provider's contractual relationships with other parties.

Third, while a ratio of one physician to 200 Medicaid patients in an IPA model MCO, in itself, may not be unreasonable, our concern is that a practitioner who already is serving a substantial number of Medicaid patients should not be inundated with new patients, especially when the HMO-MCO requires that Medicaid patients be accepted along with its commercial patients. Therefore, we urge the Department to include a provision under which a practitioner can obtain relief from assignment of a disproportionate number of Medicaid patients by allowing the practitioner who has a ratio of at least 1:200 Medicaid patients, from whatever referring source, to close his or her panel to new Medicaid patients from any MCO. Importantly, such a provision must contain a requirement that an MCO cannot exact any penalty or reprisal against a such a provider for closing his or her panel.

3. Appointment Mandates, Timeliness. (62.10(A)&(B), Access Standards: Clinical Access, Appointments p.57-60)

The regulations contain details of practice administration that verge upon micro-management, and that promise to involve providers and MCOs alike in sanctionable conduct and regulatory entanglements. For example, MCO is obliged to schedule initial appointment of Medicaid patients within certain specific times for different categories of patient: normal 90 days, pregnant 10 days, family planning 10 days; it is obliged to follow appointment guidelines setting specific times within which appointment must occur after patient request; and specific time limits are set for waiting room (1 hour), responding to phone call (10 minutes), inquiry about ER use (30 minutes) (62.10(B), p.58-60) .

It must be remembered that all of these functions will actually be undertaken by the provider, not some insurance bureaucracy, and they will be paid for out of capitation. The level of detail in the regulations concerning such items is unreasonable and inappropriate. Instead, we strongly urge amendment of the regulations so that such matters as scheduling and response times must occur within a reasonable time under circumstances.

4. Emergency Services Access. (62.10(F)(3)&(4), Access Standards: Clinical Access, Emerg. Services Access, p. 61-62; 62.22(B) Payment for self-referred and emergency services)

The regulations contain inconsistent provisions regarding reimbursement for emergency services. Reimbursement provision are stated incorrectly in the clinical access sections (62.10(F)(3), p.62) and correctly in later provision for reimbursement for self-referred and emergency services (62.22(B), p.98). The clinical access section (62.10(F)) does not include a clear obligation of the MCO to reimburse the emergency room providers when the patient meets "prudent layperson" standard, which is current law, while later section (62.22(B)) does. Moreover, the section on out-of-plan ER access (62.10(F)(4)) is unnecessary and inconsistent with "prudent layperson" standard. If this provision is corrected to include "prudent layperson" standard, then paragraph (3) includes (4) and becomes unnecessary.

5. Historic Providers. (62.18(A) Historic Providers, Conditions of Eligibility, p.87)

The regulations' provisions setting qualifications for historic providers, we believe, are unduly restrictive in that they link an historic provider's "demonstrated history" of service to a dollars amount of reimbursement. The term, "demonstrated history of providing service" is statutory language from S.B.750 which is not defined in the law. We submit that the volume of patients served by a provider should not determine whether the provider has a demonstrated history; for remote location or other circumstances may have limited numbers of providers who were been ready, willing and able to serve. Any dollar amount qualification, e.g. $25,000, is arbitrary, and, we submit, should be omitted.

We urge that the regulations provide that for purposes of qualifying as an historical provider, a health care provider shall be considered to have a demonstrated history of service to Medicaid recipients if such provider participated in the Maryland Access to Care (MAC) program, or was willing ond available to accept Medicoid program participants for a period of at least one year prior to June 30, 1995, regardless of the number of program participants actually served by such provider.

We appreciate the opportunity to comment on the proposed regulations, and trust that these suggestions, along with those of our correspondence of July 24, 1996, will be given fair consideration in formulating the final regulations.

Yours Very Truly,
Alex Azar, M.D.
President

Speak Out

Health care fraud: your risk may be greater than you think

Maryland Medical Journal readers are strongly urged to carefully examine the article appearing in this issue entitled "Health Care Fraud Enforcement Initiatives in Maryland." Your initial reaction to the title, like mine, is probably, "Anyone who criminally defrauds the government or another payer deserves any penalty awarded—the relatively few bad apples spread a pall over us all."

There is certainly much fraud in the billing for services, medication, and durable equipment. The more thoroughly and quickly it is eliminated, the better for all of us.

It is unfortunate, however, that the risks of prosecution, prison confinement, massive fines and forfeitures, as well as the loss of license to practice, face all physicians whether we are aware of this fact or not.

The American system of justice was predicated on an individual's presumption of innocence unless and until that person is found guilty by a jury of peers. We have lost that safeguard in our rights when the Internal Revenue Service began considering us guilty unless we could document that we were not. Now this perversion is being adopted by the Department of "Justice" in attempting to prosecute you. They have changed the rules so that it is no longer necessary for you to have knowingly committed fraud. Now, "knowing or *should have knowledge of*" (italics mine) can convict you. In explaining this, a government representative admits what should be obvious to you: "the burden of proof is simpler."

All of you know how complicated and confusing much of the coding can be. You only need to read the baffling questions that are presented to the experts in many of our journals. In your busy practice, if you erroneously code a service, or if one of your employees does so, you can be prosecuted without being given a chance to correct your error. The millions of dollars used by the government in its massive program for "enforcement" can leave you with insignificant comparative resources to defend yourself. And should you even be able to accomplish this Herculean feat, you may end up vindicated but penniless.

I have known of a colleague who billed for too many "intermediate" office visits, which in the eyes of the government were considered "brief." There is little defense to justify a 30-minute visit a year or more later when the record has only a brief notation. This is obviously a deficiency that physicians should be instructed to correct. However, is it a serious enough failure to merit fines,

Speak Out

possible imprisonment, and loss of license to practice? A plea of guilty to avoid a costly defense, and with nothing tangible to confirm your stand, can lead to these actions.

Another chilling revelation in this article is the "B7 exclusion," in which the provider does not have to be convicted to be excluded from the program. In other words, even if you prevail at great personal expense and aggravation, you can still be excluded from the program at their whim.

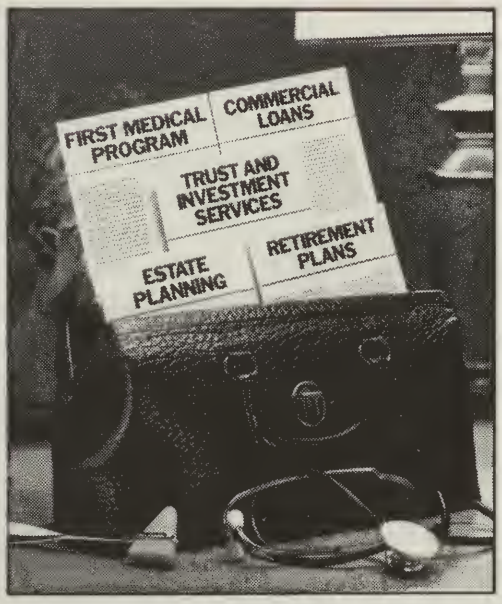
When I was in practice, I could legally teach my staff to take a simple chest radiograph, place a patient under diathermy, or run a simple blood sugar or urine test without fear of censure. Today, not only have such practices become illegal, but the physician who does them can be hauled into court as well as prosecuted as if the service was not rendered. It is my understanding that one or more physicians are headed for prison for having allowed employees to place patients under diathermy machines because the employees were not licensed physical therapists. In the government's view, the patient was never treated and thus the billing was fraudulent. As the article states (italics mine), "The FBI focus in Maryland is on physician services not being rendered or *services delivered by unqualified individuals (e.g., nurse's aids, nurses, physical therapists*).

In discussing its attitude concerning the responsibility of the individual in charge of a given medical system, the Office of the Inspector General recommends instituting a "compliance program." In this regard, a representative stated: "Do you have a compliance program, and how many employees have been disciplined, terminated, or sanctioned as a result. Don't ever tell me *none*." Although this comment was made regarding fraud at a hospital, how long will it be before a compliance program is required for a group practice or even a solo practitioner who employs several people?

Luckily, I was of the age and financial capacity to retire from active practice some 12 years ago. I did so seeing the increasing stumbling blocks and traps being placed in our path by government, insurance carriers, lawyers, and even patients who had been brainwashed into expecting only perfect outcomes even when none were possible or when their own neglect or negative lifestyles had largely contributed to our failure. I write not from bitterness because I have never been threatened with sanctions or legal action of any kind by either patients or the authorities. It has been my good fortune to have practiced some 35 years during the "golden age" of medicine. I comment because of my deep concern for those of my colleagues who are increasingly being trapped in an unbearable environment and for the obvious ill effects that this will certainly produce for our patients.

Marion Friedman, M.D.
Dr. Friedman, a retired Baltimore family physician and internist, is the editor of *The Maryland Family Doctor.* ■

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Manjari Joshi, M.D., and **Ellis S. Caplan, M.D.,** are among the authors of "Infections in the Trauma Patient," a chapter in *Complications in Trauma and Critical Care* published in 1996 by Saunders. Dr. Joshi is an assistant professor of medicine at the University of Maryland School of Medicine and senior attending physician, infectious diseases, at the R Adams Cowley Shock Trauma Center in Baltimore. Dr. Caplan is an associate professor of medicine at the University of Maryland School of Medicine and chief of infectious diseases at the R Adams Cowley Shock Trauma Center.

Roger S. Blumenthal, M.D., and **Lewis C. Becker, M.D.,** are among the authors of a study indicating that high proportions of asymptomatic adult siblings of persons with premature coronary heart disease may be candidates for dietary intervention and drug treatment for hypercholesterolemia. The investigators conclude that a family history of premature CHD in young adults of both genders should prompt aggressive cholesterol screening and management (*Arch Intern Med* 1996;156:1654–660). Drs. Blumenthal and Becker are in the division of cardiology at The Johns Hopkins University School of Medicine.

David G. McLeod, M.D., and **Judd W. Moul, M.D.,** are among the authors of a study of age-specific reference ranges for serum prostate-specific antigen in black men. Results indicate that serum PSA levels are significantly higher in black men than in white men, and that if traditional age-specific reference ranges (keeping the specificity at 95%) are used to screen black men, up to 41% of cases of prostate cancer could be missed (*N Engl J Med* 1996;335:304–310). Drs. McLeod and Moul are from the Center for Prostate Disease Research and the department of surgery at the Uniformed Services University of the Health Sciences in Bethesda.

James H. Dorsey, M.D., chairman of gynecology at Greater Baltimore Medical Center, is the lead author of a study comparing the costs of vaginal, total abdominal, and laparoscopically assisted vaginal hysterectomy. Results indicate that although hospital stay is usually shorter with laparoscopically assisted vaginal hysterectomy, overall costs are higher than for the other two methods because of longer operating room time and higher costs of supplies, which are often disposable (*N Engl J Med* 1996;335:476–482).

Neil R. Powe, M.D., M.P.H., and **Paul W. Ladenson, M.D.,** are among the authors of a study indicating that periodic screening for mild thyroid failure by measuring serum thyroid stimulating hormone concentration in adults over the age of 35, particularly elderly women, is cost effective (*JAMA* 1996;276:285–292). Dr. Powe is associated with the departments of epidemiology and health policy and management at The Johns Hopkins University School of Hygiene and Public Health and the Welch Center for Prevention, Epidemiology, and Clinical Research. Dr. Ladenson is with the department of endocrinology and metabolism at The Johns Hopkins University School of Medicine.

Debra R. Counts, M.D., of the division of pediatric endocrinology at the University of Maryland Medical Center, is the corresponding author of a clinical case seminar describing anterior hypopituitarism in a 10-week-old infant presenting with cholestasis and a history of hypoglycemia (*J Clin Endocrinol Metab* 1996;81:2786–2789).

LT COL Eron G. Manusov, MC, and **Wade A. Lillegard, M.D.,** of the Uniformed Services University of the Health Sciences in Bethesda, are the lead authors of a clinical review of how to evaluate pediatric foot problems. (*Am Fam Physician* 1996;54:592–606).

George Moran, M.D., and **Henry Meilman, M.D.**, of the division of cardiology at The Union Memorial Hospital in Baltimore, are among the authors of a report indicating that hostility, as measured by the Rosenman type A structured interview, is associated with increased risk of restenosis after percutaneous transluminal coronary angioplasty (*Mayo Clin Proc* 1996;71:729–734).

Robert P. Roca, M.D., M.P.H., Fredrick M. Wigley, M.D., and **Barbara White, M.D.**, are the authors of a study investigating the prevalence and correlates of depressive symptoms in patients with scleroderma. They report finding highly significant relationships between depression and aspects of personality, psychosocial adjustment to illness, and social support; they conclude that depression in scleroderma patients is a debilitating comorbid condition that should be treated in its own right (*Arthritis Rheum* 1996;39:1035–1040). The authors are associated with the Johns Hopkins and University of Maryland Scleroderma Center at The Johns Hopkins Bayview Medical Center.

Michael F. Angel, M.D., Norman Clark, M.D., and **Paul N. Manson, M.D.**, are the authors of "Complications in the Management of Soft Tissue Injuries," a chapter in *Complications in Trauma and Critical Care* published in 1996 by Saunders. Dr. Angel is an assistant professor in the department of plastic surgery at The Johns Hopkins Hospital. Dr. Clark is director of plastic, reconstructive, and craniomaxillofacial surgery at the R Adams Cowley Shock Trauma Center in Baltimore. Dr. Manson is a professor of plastic surgery at the University of Maryland and Johns Hopkins medical schools and chief of the division of plastic surgery at the R Adams Cowley Shock Trauma Center. Drs. Clark and Manson are also the authors of "Complications in the Treatment of Maxillofacial Trauma" in the same book.

Marshall J. Glesby, M.D., and **Donald R. Hoover, Ph.D.**, are the authors of an article discussing survivor treatment selection bias as an important potential limitation in the analysis of observational treatment studies. They state that investigators should model treatment initiation as a time-dependent covariate in regression models, and that readers and reviewers should be cautious in interpreting the results of observational treatment studies (*Ann Intern Med* 1996;124:999–1005). Dr. Glesby is associated with the division of infectious diseases at The Johns Hopkins University School of Medicine and Dr. Hoover is with the department of epidemiology at The Johns Hopkins University School of Hygiene and Public Health.

Keith D. Lillemoe, M.D., a professor of surgery at The Johns Hopkins Hospital, is the author of an editorial in the *Journal of the American College of Surgeons* (1996;183:155–156) discussing the lead article, a 10-year study from Memorial Sloan-Kettering Cancer Center involving 79 patients with primary adenocarcinoma (*J Am Coll Surg* 1996;183:89–96). Dr. Lillemoe argues that there is a role for aggressive resection in patients who appear to have locally advanced disease.

Michele F. Bellantoni, M.D., of the division of geriatric medicine and gerontology at Johns Hopkins Bayview Medical Center, is the lead author of a placebo-controlled, crossover trial comparing the effects of oral versus transdermal estrogen on the growth hormone/insulin-like growth factor I axis in younger and older postmenopausal women. The investigators conclude that aging, not estrogen deficiency, causes age-related decreases in spontaneous GH secretion in the GH response to GHRH or in IGF-I levels (*J Clin Endocrinol Metab* 1996;81:2848–2853).

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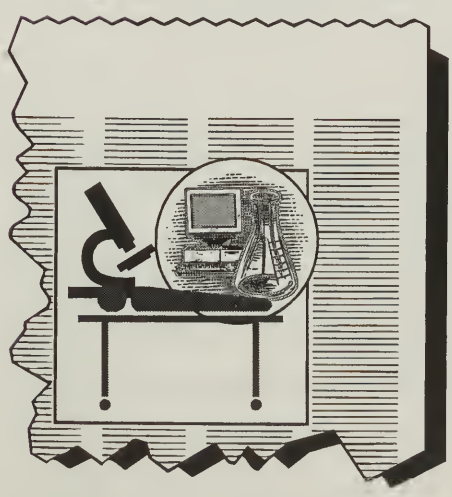
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  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

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Iatrogenic disease: what the physician can do

Marion Friedman, M.D.

Dr. Friedman, a retired Baltimore family physician and internist, is the editor of The Maryland Family Doctor.

ABSTRACT: *Physicians should consider iatrogenic disease in every differential diagnosis. This article reviews some of the more frequent undesirable events that may result from the use of commonly prescribed drugs, as well as strategies to prevent their occurrence.*

As our medications increase in number and become more complex, as they expand their ability to do more for a greater number of conditions in a larger number of patients, physicians are faced with an ever-increasing potential to cause harm. It is estimated that about 3% to 5% of outpatients and about 10% to 20% of hospitalized patients develop adverse effects while taking medications, and that 3% to 5% of all hospitalizations are caused by adverse drug reactions.[1] In a review of 100 randomly selected cases in a general hospital, that estimate was shown to be conservative.[2] In 52 of the 100 records, 76 actual or potential iatrogenic conditions were identified, most of which, according to the records, were not recognized as such by the attending physicians. A British study adds weight to these findings.[3] The author noted a 41% "certain" or "probable" reaction rate after one week in study patients, each of whom was taking only a single drug. There is a substantial amount of injury to patients from medical management and many injuries are the result of substandard care,[4] a potential recognized as far back as the time of Homer and Hippocrates.[5]

Failure to address the occurrence of iatrogenic disease results in untold misery and even some fatalities, as well as in malpractice litigation. In the current era of expanding medical needs with inadequate funds to provide them, it also results in a waste of scarce medical resources.

Prevention

There are a number of general preventive measures that every physician can apply.[6] They all begin with awareness of the problem. Iatrogenic

I am often reminded of a woman who called me on the radio program "Ask Your Doctor About Your Medicines," which was sponsored by the American Academy of Family Physicians in cooperation with the Food and Drug Administration and a national radio chain. The caller explained that her physician told her she had hypertension, for which she was given prescriptions for metoprolol (Lopressor) and a diuretic. Shortly thereafter she developed diarrhea. She was then given an antidiarrheal medication and the drugs for her hypertension were continued. When the problem persisted, she asked if her medication could be causing the diarrhea. She was told it could not. She was hospitalized and underwent thorough diagnostic studies, including colonoscopy. When no abnormalities were found, she was told she had colitis. All her medications were continued. Her question to me was the same, "Could the blood pressure medication be causing my diarrhea?"

Although I had never personally encountered this side effect in my use of metoprolol, when I looked it up in the PDR, to my surprise it stated, "Diarrhea has occurred in about 5 of 100 patients."

disease must be considered in the differential diagnosis whenever a patient is seen. Thus, the physician must ask what the patient is taking: prescription as well as over-the-counter medications, unusual foods, and so on. Use the word *medicines* when talking to patients because the word *drugs* may connote illicit substances. Some patients may be reluctant to admit they are also seeing another physician, so it is important to stress that this information is needed to avoid prescribing an incompatible, potentially harmful medication.

Even the most conscientious patient, however, may neglect to mention taking an important drug. It is therefore important routinely to ask patients to bring all their medications to the office on each visit. In addition to seeing what medication the patient is taking, the physician can learn whether the pharmacist provided the medication actually prescribed and included the correct instructions and whether the patient is taking it as prescribed. (One of my patients insisted that her NSAID was not helping her. I learned—by counting her pills—that she had taken a total of one tablet during the previous week.) Patients should understand why a medication is prescribed, how often it should be taken, how long it should be continued, and if it can be taken with food or other drugs. They should be told to contact the physician before discontinuing a medication if new symptoms occur.

Whenever possible, treat the patient's specific illness, not just the symptoms. For example, an isolated abnormal laboratory finding that is inconsistent with the clinical findings should not be treated without further confirmation. With most conditions, even chronic ones, consider whether a nondrug therapy might be effective and safer. The physician also should consider whether there is a single medication that might be effective for more than one of the patient's problems, whether a medication is still necessary, and if so, whether a smaller dose may be as effective.

No physician can be familiar with all possible drug side effects and interactions. To diminish the risk of adverse reactions, physicians can limit the number of drugs they generally prescribe. Often a number of them are in the same categories, have the same indications, and have no appreciable advantage over each other. Choose one or two in each class with which to become comfortable and familiar. Carefully review their package inserts or entries in the *Physicians' Desk Reference* (PDR), making a mental note of the general pharmacologic group into which they fall. If a patient presents with new symptoms while taking medication, consult these references to be sure the complaints are not being produced by medication already being taken. When in doubt, try to discontinue the drug, decrease the dose, or change it completely if at all possible.

It should also be noted that most drugs have not been tested for safety in pregnant women. Relatively few have been investigated for their efficacy and safety in children, who are not simply "small adults." There are also only limited studies directed toward how the elderly respond to various drugs. What is mainly known is the manner of metabolism and excretion of the drug and from this is extrapolated the required adjustments in dosage.

Side effects in frequently prescribed drugs: antibiotics

The 10 most frequently prescribed generic drugs, the 10 most frequently ordered new prescriptions *and* refills, and the 10 most prescribed new prescriptions in 1995 are shown in **Table 1**.[7] Antibiotics were prescribed most (they represent 5 of the first 8 generics listed and 6 of the first 9 new prescriptions).

Amoxicillin was the most popular; it appears on all three lists—as a generic, with two trade names (Amoxil and Trimox), and in combination with a beta-lactamase inhibitor (Augmentin).

Penicillins. Amoxicillin is an aminopenicillin. The penicillins G and V differ somewhat from each other and the aminopenicillins in terms of absorption, serum concentrations, various bacterial sensitivities, etc., but have essentially the same possible side effects. The most common are hypersensitivity reactions that range in severity from rashes to immediate anaphylaxis. The incidence of hypersensitivity reactions is estimated to be between 1% and 10%.[8] Among other untoward reactions, gastrointestinal (GI) distress is probably the most common, especially with oral preparations. In this category, pseudomembranous colitis is undoubtedly the most serious.

Previous exposure to a substance is usually the sensitizing incident that may produce undesirable effects with subsequent exposure. Because a patient previously may have ingested a penicillin with milk or other foods, unknowingly producing the sensitivity, the physician cannot always be forewarned. Skin testing has not been a productive alternative. With so many other antibiotics available, it would be more rational to avoid the drug when there is reasonable suspicion of sensitivity.

Tetracyclines. At the usual levels, tetracyclines have relatively low toxicity. Doxycycline hyclate, a long-acting tetracycline, has essentially the same action and similar untoward problems. The most common adverse effect in this group is gastrointestinal, but like the penicillins, tetracyclines can cause rashes, blood dyscrasias, and hypersensitivity reactions. Two important side effects, however, are peculiar to the tetracyclines: photosensitivity, which is not aided by sunscreens; and the risk of permanent discoloration of the teeth during the developmental stage (from gestation to 8 years of age).

Cephalexin. A first-generation cephalosporin, cephalexin is like the penicillins in containing a beta-lactam ring. Unless a patient has experienced an *immediate* hypersensitivity reaction to penicillin, however, it is usually safe to administer a cephalosporin. Potentially adverse effects are similar to those seen with the penicillins and amoxicillins. If alcohol is ingested with any of the cephalosporins, however, the patient may experience a disulfiram-like reaction.

Ciprofloxacin (Cipro). A quinolone that normally is well tolerated, ciprofloxacin is associated with possible adverse effects that are similar to those described above for antibiotics. Magnesium and aluminum antacids interfere with its use. Although it may be taken with food, the preferred time is two hours after a meal because food delays absorption. It can produce cartilage erosion in weight-bearing joints and thus should be used cautiously in children and pregnant women. An infrequent, yet important possible adverse reaction with all fluoroquinolones is inflammation and even rupture of tendons. Patients should be warned that should they experience any soreness in their tendons the drug should be promptly discontinued. Because ciprofloxacin occasionally may produce dizziness, it may be advisable to instruct patients not to engage in activities that might place them at risk after taking the first dose or two.

Concomitant administration of ciprofloxacin and theophylline prolongs retention of the latter and may lead to toxic levels of this drug. If the drugs are used simultaneously,

Table 1. Top 10 Prescription Drugs, 1995

- **Generic**
  1. Amoxicillin trihydrate
  2. Prednisone
  3. Penicillin VK
  4. Cephalexin
  5. Doxycycline hyclate
  6. Ibuprofen
  7. Hydrochlorothiazide
  8. Tetracycline hydrochloride
  9. Hydrocodone s/APAP
  10. Albuterol
- **New and refill prescriptions**
  1. Premarin oral (Wyeth-Ayerst)
  2. Trimox (Apothecon)
  3. Synthroid (Knoll)
  4. Zantac (Glaxo)
  5. Amoxil (SmithKline Beecham)
  6. Lanoxin (Allen & Hanbury)
  7. Vasotec (Merck)
  8. Procardia XL (Pratt)
  9. Prozac (Dista)
  10. Proventil Aerosol (Schering)
- **New prescriptions**
  1. Trimox (Apothecon)
  2. Amoxil (SmithKline Beecham)
  3. Premarin oral (Wyeth-Ayerst)
  4. Biaxin (Abbott)
  5. Augmentin (SmithKline Beecham)
  6. Zantac (Glaxo)
  7. Hydrocodone/APAP (Watson)
  8. Amoxicillin trihydrate (Biocraft)
  9. Cipro (Bayer)
  10. Synthroid (Knoll)

theophylline plasma levels should be closely monitored. Probenecid increases the plasma level of ciprofloxacin, as it does the penicillins, by blocking their renal excretion, a factor that should be considered if the drugs are used together.

Clarithromycin (Biaxin). An antibiotic of the macrolide class, clarithromycin is associated with somewhat less frequent adverse reactions than erythromycin. The most frequent untoward responses involve the GI tract. Clarithromycin may rarely be associated with ventricular tachycardia, especially in a patient with a prolonged QT interval. Like erythromycin—which may increase the plasma levels of digoxin, theophylline, oral anticoagulants, ergot preparations, hexobarbital, phenytoin (Dilantin), and carbamazepine (Tegretol)—clarithromycin should be coadministered cautiously with these drugs. Orally administered macrolide antibiotics also can boost to dangerous, even fatal levels, the blood levels of the antihistamines terfenadine (Seldane) and astemizole (Histmanal) and the antifungal ketoconazole (Nizoral). Concomitant use of clarithromycin and cyclosporine also should be carefully monitored. Clarithromycin should not be prescribed during pregnancy unless absolutely necessary because it is potentially hazardous to the fetus.

Cardiovascular drugs

Enalapril (Vasotec). An angiotensin-converting enzyme (ACE) inhibitor, enalapril is generally well tolerated. Like all drugs with hypotensive effects, it may cause orthostatic hypotension, with dizziness being the most common symptom. Although not frequent, cough is a well-recognized side effect that often subsides if the medication is continued. As with all ACE inhibitors, enalapril should be used cautiously in patients with significant renal insufficiency.

Nifedipine (Procardia). A calcium channel blocker, nifedipine also has hypotensive activity that can produce side effects associated with orthostatic hypotension, especially if the drug is used with a beta-blocker. Peripheral edema, nausea, headaches, flushing, and weakness are some of the more common adverse effects. The blood level of nifedipine is elevated when taken with grapefruit (a possibility not mentioned in the PDR) and the combination may result in dangerous reactions, including confusion and irregular heartbeats.[10] The interaction is probably related to the CYP3A4 sufamily of enzymes.[11] Several other calcium channel blockers are chemically quite different from nifedipine and thus may differ in their untoward effects. As a result, if one calcium channel blocker is causing difficulty, it may be possible to substitute another.

Hydrochlorothiazides. Drugs such as Esidrix, Hydrodiuril, and Oretic may cause hypotensive effects by lowering blood pressure beyond the range desired. They also may cause an electrolyte imbalance by depleting sodium and potassium. Because a primary function of hydrochlorothiazides is as a diuretic, it may surprise some physicians to learn that they can cause noncardiogenic pulmonary edema.[9] They also may cause photosensitivity. Concomitant use of a hydrochlorothiazide with antidiabetic drugs, corticosteroids, barbiturates, narcotics, skeletal muscle relaxants, lithium, or nonsteroidal antiinflammatory drugs (NSAIDs) may alter the response the physician is anticipating.

Digoxin. A digitalis glycoside with a narrow therapeutic range, digoxin has played a prominent role in the medical armamentarium for many decades. It is tending to lose its prime position in the treatment of congestive heart failure, however, as many physicians now prefer to initiate treatment with a diuretic. Digoxin may cause problems in patients with compromised renal function, low serum potassium or magnesium levels, or a concomitant prescription for quinidine or a calcium channel blocker. A particularly dangerous situation may occur when digoxin is used with quinidine as well as a diuretic. In such cases, frequent testing for digoxin levels usually prevents untoward reactions that can even result in death. Oatmeal and other high fiber foods and antacids may interfere with the absorption of digoxin; it is therefore preferable to take the drug at least 1 hour before or 2 to 3 hours after a meal.[10]

Other "top ten" drugs

Fluoxetine hydrochloride (Prozac). A selective serotonin reuptake inhibitor used primarily for the treatment of depression, fluoxetine has side effects that usually involve the nervous, respiratory, and digestive systems and the skin. It is wise to think of iatrogenic disease when almost any new symptoms develop during treatment with this drug. In patients with diabetes, it may alter the blood sugar, producing hypoglycemia and, when stopped, hyperglycemia. The physician must therefore carefully monitor the blood sugar when a patient with diabetes begins taking fluoxetine and for a period after it is withdrawn.

Serious reactions have been noted when a monoamine oxidase inhibitor (MAOI) and fluoxetine are given without considerable periods between their use. Fluoxetine should not be given for at least two weeks after an MAOI has been withdrawn. When the order of administration is reversed, at least five weeks should intervene.

Ibuprofen. This NSAID appears on the list of most prescribed generics. Its analgesic effect compares favorably with that of aspirin, but it is less likely to cause GI bleeding. Nevertheless, its most frequent side effects involve the GI tract and bleeding must always be considered a possibility. Ibuprofen also possesses antipyretic properties and thus, as with aspirin, one must be alert to this masking phenomenon. It is capable of producing peripheral edema and can inhibit the diuretic effects of furosemide and the thiazides. Thus, the patient with cardiac insufficiency must be monitored carefully while taking NSAIDs. They also can reduce the effect of beta-blockers. Coadministration with lithium tends to result in lithium retention and toxic plasma levels may result. Frequent lithium plasma level determinations and dosage adjustment can control the problem.

Ranitidine hydrochloride (Zantac). A generally well-tolerated histamine H_2 receptor antagonist, ranitidine produces less potentiation of other drugs than cimetidine. It is metabolized by the liver and excreted by the kidneys, however, so its use in the elderly and those with hepatic and renal impairment should be monitored closely. It also can augment the effects of alcohol. Headaches seem to be the most frequent untoward effect, but usually do not occur often and are not serious. The major point to which the clinician should be alerted is that ranitidine may alleviate the symptoms of "gastric ulcer" when in fact a malignancy is present.

Conjugated estrogens (Premarin, oral). In our attempt to prevent osteoporosis and to diminish the incidence of coronary artery disease in menopausal women, estrogen is receiving increasing interest. When its use coincides with vaginal bleeding, however, the question always arises as to whether it is breakthrough bleeding or due to an occult cancer. It should always be thoroughly studied. An argument still rages concerning the possible increased incidence of endometrial and breast cancers when estrogen is prescribed over a prolonged period. It is well to avoid its use in patients who have cancers, abnormal bleeding, cystic breasts, and thrombophlebitis.

Levothyroxin sodium (Synthroid). In patients with hypothyroidism and no other evidence of endocrine disorder, levothyroxin is relatively safe. In patients with diabetes and those with advanced cortical insufficiency, it can aggravate the intensity of these conditions. Thyroid requirements may increase when estrogen is also being administered. The dose of digoxin may have to be increased and the dose of oral anticoagulants decreased when coadministered with levothyroxin. Because the absorption of thyroid is impaired by the concurrent use of cholestyramine, they should be administered four to five hours apart. Perhaps the most important special precaution involves compromised cardiac patients, in whom thyroid use may precipitate angina.

Although thyroid preparations have been prescribed for euthyroid individuals to stimulate weight loss, there is *no* justification for such use, which can be very dangerous. When thyroid is therapeutically indicated, patients should be told that they will have to continue taking it for the rest of their lives.

Prednisone. A glucocorticoid, prednisone is very useful in a number of nonendocrine conditions. However, because of its tendency to decalcify bones and its depressant effect on the adrenal cortex when used for prolonged periods, it should be administered in short courses and dosage should be tapered rather than abruptly stopped. When long-term therapy is deemed necessary, it is preferable to give dosage on alternate days. Continued long-term use may result in cataracts, glaucoma, or the need for a hip replacement. Prednisone use can mask signs of infection. It also may induce relapse in patients with a history of mental illness. In addition, patients taking steroids should not receive immunizations because there is an increased risk of neurologic complications and because the protective effect of the immunization may be blocked due to a lack of antibody response.

Albuterol (Proventil Inhalation Aerosol). A relatively selective $beta_2$ adrenergic bronchodilator, albuterol should be used with caution in patients with cardiac disease or hypertension because it can raise blood pressure and produce angina. Although palpitations and bradycardia can occur, the incidence is lower than with other sympathomimetic agents, Nevertheless, infrequent fatalities have occurred with excessive use, and rare incidences of paradoxical, life-threatening bronchospasm have been reported.

Hydrocodone. Like all narcotic analgesic agents, hydrocodone should be used cautiously to avoid suppressing respirations, especially in elderly or debilitated patients or those who may be taking other medications with similar actions. It is also prudent to warn patients that hydrocodone may impair their mental or physical performance.

Multiple conditions requiring simultaneous therapy

When a single medication can be prescribed to treat more than one condition, there is usually less cost, greater compliance because of fewer daily doses, and most important, less chance of iatrogenic disease. Of the drugs shown in Table 1, five are in this category.[12] Oral conjugated estrogen may be used for menopausal vasomotor symptoms as well as for

osteoporosis. Ranitidine can be given for duodenal ulcers and for heartburn. Enalapril may be used for hypertension and heart failure. Nifedipine can be prescribed for hypertension and angina. Fluoxetine can be given for depression and obsessive compulsive disorder.

An instructive clinical exercise

An interesting and useful exercise for the physician would be focusing on a specific potential side effect for one day or one week, asking each patient if he or she experienced that symptom. It will be surprising how many subtle, unsuspected problems can be uncovered. In one week I discovered two cases of alopecia, one produced by Inderal and one by Tofranil; a suspected transient ischemic attack that in fact was a hypoglycemic reaction to an oral antidiabetic agent; and a patient with diabetes who was out of control because he was taking large doses of nicotinic acid.

Always remember that iatrogenic disease can produce any symptom and affect any organ.

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What to write for

The American Society of Plastic and Reconstructive Surgeons offers a series of information packets for primary care physicians entitled "Procedures in Plastic Surgery." Topics in the series include wound care, pediatric plastic surgery, breast reconstruction, and hand surgery. Designed to address the most common reasons a primary care physician might refer a patient to a plastic surgeon, the topic folders include patient education brochures as well as a clinical paper and physician's counseling guide. To order the entire series or a specific topic, write to Procedures in Plastic Surgery, ASPRS, 444 E. Algonquin Rd., Arlington Heights, IL 60005, or fax to 847-228-9131.

Renal abscess: an illustrative case and review of the literature

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ABSTRACT: *A patient had pyleonephritis with fever and pain that did not resolve, which prompted an abdominal ultrasound examination that showed an abscess within the renal cortex. Renal abscesses are particularly dangerous because of their location and potential spread to adjacent tissues. Although ultrasound is the best modality for imaging a renal abscess, computed tomography provides better tissue contrast, especially in obese patients. The pathophysiology of renal abscesses has changed during the past 25 years. Most cases are now caused by gram negative enteric organisms that are similarly pathogenic in uncomplicated cystitis and pyelonephritis. Successful treatment of a renal abscess requires long-term intravenous and oral antibiotics; surgical or percutaneous drainage is reserved for nonresponders.*

A renal abscess, also known as a renal carbuncle, is a fluid-filled parenchymal mass that is thought to arise from the coalescence of multiple small microabscesses.[1] Although an intrarenal abscess is not as common as the more frequently encountered perinephric abscess, this observation probably results from the lack of symptoms of the renal abscess prior to capsular invasion and perirenal extension. In the past, the diagnosis was usually confirmed at the time of surgical drainage. Thus, most of the information about renal and perinephric abscesses is found in the surgical literature.

This article describes an illustrative case of a patient with a renal abscess, discusses the dangers associated with an abscess in this location, provides a rationale for the use of certain diagnostic tests, and describes the change in etiology and treatment options that the recent literature supports.



Figure 1. Computed tomogram of a 25-year-old woman showing a 3- to 4-centimeter mass with a central loculated cavity in the cortex of the left kidney (arrowheads). No perinephric spread or inflammation is present.

Case history

A 25-year-old woman presented to the emergency room with a four-day history of nausea, vomiting, and chills. She reported dysuria and increased frequency of urination during the previous week, for which she started trimethoprim/sulfamethoxazole. She experienced some colicky back and left flank pain on the day prior to admission. She gave a history of frequent urinary tract infections that usually occurred after sexual intercourse and resolved with antibiotic treatment. During the current episode, however, antimicrobial therapy did not alleviate the symptoms.

The patient smoked one pack of cigarettes per day. There were no other significant factors in her past medical history.

The physical examination showed a well-developed woman in moderate distress. The rectal temperature was 105°F, the blood pressure was 102/64 mm Hg, and the pulse was 97 and regular. The abdomen showed mild tenderness to deep palpation over the suprapubic area. There was marked costophrenic angle tenderness on the left. The pelvic examination showed no masses, cervical exudate, or motion tenderness. Laboratory examination showed the white blood cell count was 11.3 x 10^9/L and the differential was normal. Urinalysis results showed 10 to 15 white blood cells per high power field on microscopic examination.

Intravenous ampicillin and gentamicin were started and produced prompt defervescence. The urine culture grew *Escherichia coli* that was sensitive to the patient's current antibiotics, but after 5 days of therapy and without fever she still had some costophrenic angle tenderness. Renal ultrasound showed a 3-centimeter hypoechoic mass in the upper pole of the left kidney, and computed tomography (CT) confirmed a 3- to 4-centimeter hypodense mass consistent with an abscess (**Figure 1**). After several days of continued intravenous antibiotic therapy, the patient was clinically improved and was discharged to receive a total of two weeks of intravenous as well as two weeks of oral ampicillin therapy.

An outpatient follow-up examination showed no costophrenic angle tenderness, and ultrasound showed the abscess was reduced. Four weeks after the patient completed the course of antibiotics, ultrasound showed complete resolution of the abscess cavity.

This case illustrates several important aspects of the diagnosis, pathophysiology, and management of renal abscess that will be discussed below. The renal abscess complicated a urinary tract infection caused by *E. coli*. The abscess was diagnosed and followed by ultrasound and was effectively treated with antibiotics, thus avoiding the necessity for surgical drainage.

Anatomy

An intrarenal abscess occurs within the renal capsule, but untreated and fulminant infections can rupture through the capsule, involving the perinephric space and thus the retroperitoneum (**Figure 2**). The retroperitoneal position is important when considering the complications of infections in this area. Three areas deserve special consideration (**Figure 2**): the anterior perirenal space, which contains portions of the pancreas and small and large bowel; the perinephric space, which contains Gerota's fascia, the kidneys, and the adrenals; and the intrarenal space, which is the renal paren-

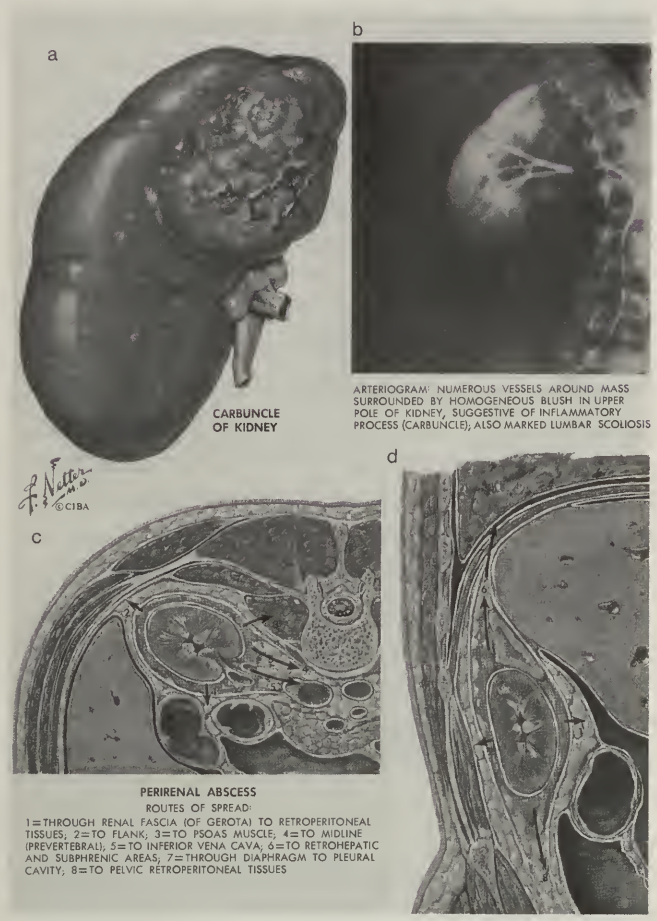


Figure 2. *Panel a* shows the gross appearance of a renal carbuncle. *Panel b* shows the renal arteriogram appearance with a hypervascular exterior and hypovascular interior of the mass. *Panels c* and *d* show the adjacent structures that are at risk during capsular invasion and spread of infection. *(Copyright 1973, CIBA-GEIGY Corporation. Reprinted with permission from the Ciba Collection of Medical Illustrations, illustrated by Frank H. Netter, M.D. All rights reserved.)*

chymal tissue. The spread of infection can have a dire impact on vital structures. Once the infection has spread to the perinephric spaces, treatment requires placement of a perinephric drain to ensure adequate drainage of the infection.[2,3] Thus, identifying and treating an intrarenal abscess before capsular invasion can prevent perinephric and retroperitoneal spread of infection and avoid the insertion of a perinephric drain.

Radiographic assessment

Before the availability of sonography and CT, renal abscess was an elusive diagnosis.[4] Because of the retroperitoneal position of the kidney, renal pathology frequently escapes detection by physical examination. Intravenous pyelography could detect an intrarenal mass, but angiography was frequently necessary to distinguish between a neoplastic and an infectious process.[5] On an angiogram, an abscess appears hypervascular in the periphery while the central part of the mass has a paucity of blood supply (**Figure 2**). Neoplastic masses, on the other hand, appear hypervascular throughout as long as there has been no central necrosis. In any case, the diagnosis, although suggested by these techniques, was rarely confirmed before open nephrectomy.

Renal ultrasound is currently a good diagnostic tool for detecting a renal abscess.[6,7] Its lower cost and good tissue contrast are advantages. Obesity and large amounts of bowel gas, however, obscure the retroperitoneal images. Although it is more expensive, computed tomography provides a clearer definition of renal pathology, even in obese patients.[4,8-10] CT also provides details regarding perinephric extension and better tissue contrast for improved specificity of the diagnosis.

In the current case report, resolution of the abscess was slow despite the patient's clinical improvement with antibiotics. Radiographic resolution clearly lags behind the clinical course, similar to the radiographic course of lung abscesses. In several case reports, resolution of intrarenal inflammation and abscesses by CT imaging generally does not completely resolve in less than 4 weeks, while perirenal inflammation takes even longer.[9-10] This prolonged radiographic resolution has important therapeutic implications (discussed below).

Pathophysiology

The first description of a renal abscess was published in 1891.[11] In that case, a 37-year-old army officer underwent open nephrectomy for a renal mass. The organism cultured from the abscess was *Staphylococcus aureus*, which apparently had disseminated from a neck carbuncle. The renal abscess had extended to the capsular surface and was complicated by perinephric inflammation, which caused a complicated yet successful postoperative course.

Early case reports of renal abscesses described a preponderance of male patients and frequent association with either skin and soft tissue infections or staphylococcal endocarditis.[11,13] These observations suggested that bacteremia or septic emboli caused bacterial seeding of the renal parenchyma with subsequent growth and coalescence to abscess. In one of the first reports on perirenal and renal abscesses, Graves and Parkins[2] reported that 70% of patients with these infections had a preceding superficial skin infection. According to that report, patients rarely complained of urinary symptoms and the majority of urine cultures were sterile. It is not surprising that during the early 1900s, in most cases *S.*

Table 1. Previously reported studies of renal abscesses and the percentage of cases caused by gram negative organisms.

Author	Total number of cases	Percent caused by gram negative organisms
Anderson	12	100
Costello	2	50
Caldamone	5	100
Rives	12	92
Timmons	5	60
Zatuchni	1	100
Malgieri	5	80
Khashu	5	80
Kaneti	1	100
Klein	5	80
Noverman	14	93

aureus grew from the abscess cavity at the time of surgical drainage.

Beginning in the mid 1970s, case reports appeared from both the surgical and medical literature suggesting a change in the etiology of renal abscesses. These reports and series showed the presence of Enterobacteriaciae in abscess material with increasing frequency (**Table 1**).[13-24] In one of the largest studies, Anderson and McAnninch[13] reviewed 40 cases of renal and perirenal infections. In that series, eight of the 12 cases of cortical abscesses grew *E. coli*, *Proteus*, or *Pseudomonas*. None of the abscesses grew gram positive organisms. It is even more interesting that in eight patients, urine cultures taken at the time of admission grew the bacteria that was cultured directly from the abscess cavity at the time of surgery.

Of the two reports from the internal medicine literature, Hoverman[25] cited not only the change in the etiology of renal abscesses, but also a change in the way they can be diagnosed. In that report, *E. coli* was found in 8, *Klebsiella* in 3, *Citrobacter* in 1, and staphylococci in only 2 of the 14 cases. Urine cultures grew the offending organism in all of the cases, thus guiding antibiotic treatment to appropriately cover enteric organisms. The ability to culture organisms from the urine was in clear contradistinction to the majority of previous reports, when urine cultures were sterile and direct abscess culture was necessary.

These reports seem to indicate that in addition to being characterized by metastatic bloodborne spread, intrarenal abscesses are a complication of ascending urinary tract infection. The reports also suggest that patients with pyelonephritis are the most susceptible to abscess formation.

Although that concept makes sense intuitively, the historical evolution of the change in etiology is dfficult to explain. In their reports on perinephric abscesses, Thorley and coworkers[12] suggested that the use of antistaphylococcal antibiotics was responsible for the decreased incidence of staphylococcal suppuration. That explanation may account for a decrease in the number of staphylococcal abscesses, but it does not explain the rare occurrence in the old literature of enteric pathogens. With the broader use and stronger antibiotics used during the past 25 years, there may have been a selection toward organisms that are predisposed to ascending the genitourinary tract, yet that hypothesis cannot be confirmed.

Treatment

The first successful treatment of a renal abscess was described by a French physician in 1474. The patient, a prisoner, was granted freedom for agreeing to undergo the surgical drainage procedure![11,13] During the past 25 years, treatment options have been debated in the literature. The advantage of early surgical drainage was to confirm the diagnosis and guide antibiotic therapy. As with advances in the treatment of other abscesses, urologists developed the percutaneous drain, which obviated the need for an open procedure.[15-18] Although less complicated than an open drainage, the percutaneous approach is still associated with significant morbidity.

In 1957, Colby and colleagues[26] described the first successful treatment of a renal abscess with antibiotics alone. The patient was treated with intramuscular antistaphylococcal antibiotics and resolution of the abscess was documented by intravenous pyelogram.

More recently, case series have shown that long-term antibiotics alone are sufficient treatment, thus obviating a surgical procedure and its inherent risks. In 1977, for example, Schiff and coworkers[27] demonstrated resolution of a renal abscess in seven patients treated with a prolonged course of intravenous and oral antibiotics. In that series, the physicians chose synthetic penicillins specifically active against *Staphylococcus*. It is not clear if that choice was appropriate because most of the urine cultures were sterile, but most physicians at the time thought *Staphylococcus* was responsible for the disease.

Several recent reports in the urologic literature agree that adequate resolution can be attained in most patients with prolonged use of antibiotics alone and that surgery can be reserved for the nonresponders.[18,19,24] This treatment strategy makes sense because the kidney, similar to the lung, has built-in drainage capabilities.

Discussion

The renal abscess is infrequently encountered by internists. As a result, there have been few large-scale studies to

confirm certain treatment strategies. Our surgical colleagues (along with occasional medical reports) have provided most of the information about this disease. Gram negative bacteria are now the most common cause of abscesses confined to the renal parenchyma or extending outside the renal capsule. There clearly has been a change in the organisms that cause renal abscesses for reasons that are not entirely understood. As noted previously, the availability of effective antistaphylococcal therapy may be a significant factor in the decreased incidence of metastatic staphylococcal disease. Other factors, such as an aging population or a change in virulence patterns of gram negative organisms that cause cystitis, may also have contributed.

The clinical management of a suspected renal abscess currently must include broad-spectrum coverage in the initial choice of antibiotic therapy with emphasis on bacteria commonly associated with urinary tract infection. A small proportion of patients, however, may have staphylococcal abscesses that result from endocarditis or soft tissue infections. The cases of staphylococcal infection may be more frequent in patients with underlying diabetes or other leukocyte dysfunction, but that hypothesis is not well documented.

In terms of diagnosis, it is easier than ever to confirm clinical suspicion noninvasively and follow the course of the illness. Initial treatment should include intravenous antibiotics until the patient is afebrile, followed by oral antibiotics until the abscess resolves. Subsequent changes can be guided by urine and blood culture results while percutaneous or open drainage should be reserved for antibiotic nonresponders or those with severe sepsis despite adequate antibiotics and medical management.

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CLINICAL CONFERENCES
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OBESITY UPDATE 1996

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The medical profession, and primary care physicians in particular, have failed to develop a successful approach to the management of either moderate or morbid obesity. The prevalence of morbid obesity and the average population weight have both risen significantly in the past 15 years, with one fourth to one third of the adult U.S. population currently overweight.[1] Effective and long-term therapy for moderate and/or morbid obesity has been frustrating and practically nonexistent: lifestyles are difficult to modify, available drugs are believed by most physicians to have burdensome side effects, and many surgical procedures (e.g., liposuction, gastroplasty, ileojejunal bypass) are difficult to even consider, let alone recommend. The biggest problem in treating obesity, however, is a lack of knowledge about its cause. Is it bad genes, bad behavior, the modern diet, or a sedentary lifestyle? Before we can change our therapy we need to change our thinking from the old view—that obese patients simply eat too much and would lose weight if they developed sufficient willpower—to a new view that obesity is more appropriately considered a complex, multifactorial illness involving a breakdown in the body's highly regulated system for storing fat.

Defining obesity

There are several frequently used measures of obesity. The easiest and most common method is to compare actual body weight with an ideal body weight determined from either population survival data (the life insurance approach) or from a population's average weight. With this definition, individuals are overweight or moderately obese if their weight is 20% to 25% greater than the ideal or average weight. The disadvantage of using body weight alone is that it requires tables to compare actual weight with ideal weight and hinders the direct comparison of two individuals with different heights. The more accurate methods for determining obesity involve anthropometric measurements of skin fold thickness or body volume with isotopic dilution or water tank immersion and have not gained acceptance in routine use.

The most common method for measuring fat content used in the research literature is the body mass index (BMI),[1-3] which could easily be applied in the clinic on a routine basis. The BMI usually is determined by dividing the patient's weight (in kilograms) by the patient's height (in meters) squared. The following formula, however, does not require conversion to kilograms and meters:

$$\text{body mass index} = \frac{704.5 \times \text{weight (in pounds)}}{\text{height}^2 \text{ (in inches)}}$$

Thus, the BMI of a person 5 feet 6 inches tall who weighs 135 pounds is 21.8. Although there is no universal agreement on what level of BMI constitutes obesity, it is relatively clear that mortality risk increases when the BMI exceeds 27.

Prevalence

The average weight in this country and elsewhere is rising at an alarming rate. Between 1976 and 1991, the average U.S. adult weight increased by 8 pounds; the mean BMI rose from 25.3 to 26.3; and the prevalence of adults considered to be overweight (female BMI > 27.3 and male BMI > 27.8) rose from 25% to 33%.[1] It is ironic that we are losing control of our weight at a time when morbidity and mortality from stroke and myocardial infarction are finally being controlled. Although the prevalence of obesity steadily increases with age and is higher among women, certain minority groups, and at lower socioeconomic strata, the trend toward increasing obesity during the past 20 years has affected all population segments.[1]

Morbidity and mortality

Several recent studies have prospectively compared body weight or obesity with long-term mortality in women[4] and men.[5,6] Some early studies showed an increasing risk of mortality at low BMIs, but whether obesity has effects on mortality in addition to those of obesity-related hypertension and lipidemia has been difficult to determine accurately. The "consensus result" of most recent studies is that there is a 20% to 50% increase in long-term mortality when the BMI is significantly greater than 27, but that when the BMI is

between 20 and 27, it does not correlate well with long-term mortality.[7] In the Nurses's Health Study, women with a BMI greater than 31 had a 14-year all-cause mortality 3 times greater than that of nonobese women and a relative risk of cardiac mortality 7 times greater than that of nonobese women.[4] In contrast, in a long-term study of 19 000 male Harvard alumni, the all-cause mortality in the highest weight group (BMI > 26; 1040 deaths in 4008 patients) was only about 10% to 20% higher than in the so-called normal weight group (BMI 22.5 to 23.5; 599 deaths in 2,789 patients; relative risk 1.18).[5] When current and/or former smokers are excluded from these long-term mortality analyses, however, there is no increased mortality in the thinnest patients and the relative mortality in the more obese weight groups is moderately higher (relative risk of all-cause mortality 1.67 with smokers excluded, 1.18 if smokers and nonsmokers are considered together[5]).

A recently published prospective study involved 10 000 patients in whom the relative effects of lifestyle and medical interventions on long-term mortality were evaluated. Changes in cholesterol, smoking status, blood pressure, and cardiovascular fitness all appeared to have a greater effect on improving mortality than did losing weight.[8] It is noteworthy that while the prevalence of obesity and average weights has risen significantly, life expectancy has risen during the same period, even for population subgroups with the highest prevalence of obesity.[9] Unlike hypertension and coronary artery disease, obesity is not a major "silent killer." In some population sub-groups (e.g., Mexican-Americans[10] and Pima Indians[11]) there appears to be little relation between body weight and mortality. Mortality-based definitions of obesity derived from white populations may in fact not be applicable to all populations and could conceivably lead in some cases to inappropriate intervention. Thus, although there are numerous reasons for a moderately obese patient to lose 20 pounds, it may be disingenuous to claim that the loss will significantly increase longevity.

There are, however, many good reasons to improve our success rate in getting patients to lose weight. The morbidity of obesity is substantial and goes beyond the well-known effects on blood pressure, lipids, insulin levels, and the musculoskeletal system. The most significant morbidity of obesity may be due to the way in which the overweight are perceived by the non-overweight. Employers,[12] physicians,[13] and children as young as age 6[14] have all been shown to harbor prejudice or antipathy toward the obese. In a review of this issue, Wadden[15] identified the contrast between how the obese view themselves (in general there is not a significantly higher degree of psychopathology in obese individuals) and the way in which obese people are perceived by others: "When shown black and white line drawings of a child of normal weight, an obese child, and children of various handicaps, including missing hands and facial disfigurement, children and adults rate the obese child as the least likable".[13,16] In a study that followed 7000 adolescents aged 16 to 24 for 7 years, those with the highest BMI had lower rates of marriage, lower income, higher rates of poverty, and less education than nonobese adolescents, even after adjusting for aptitude and socioeconomic status at baseline.[17] The obese adolescents also fared worse than nonobese adolescents with other chronic health conditions, including asthma and musculoskeletal disorders.

Society holds a double standard in that women are more often criticized for being obese. Women are nine times more likely than men to seek help from the diet industry.[12] Although the prevalence of obesity in adolescence is equivalent in males and females, adolescent girls suffer disproportionally from altered self-image, anorexia, and bulimia.[18] When getting married, nonobese women are more likely to move to a higher social class and obese women are more likely to move to a lower social class.[19] One survey of physicians' attitudes toward obese patients showed that physicians think of them as "weak-willed, ugly, and awkward."[13]

Genes, the environment, or both?

Population studies provide the most compelling evidence for an environmental influence on BMI. Danish army recruits born in 1955 were 10 times more likely to be obese than recruits born between 1925 and 1942.[20] The prevalence of obesity in all subgroups of adults in the United States has increased significantly during the past 20 years,[1] and because it is unlikely that the gene pool has changed significantly during that time, the change in average weight must be due to changes in the environment and in lifestyle. The aspects of modern American life that probably contribute to the increase in average weight are sedentary lifestyle, high fat diets, increased automation of manual tasks, and increased use of mechanized forms of transportation.

Although changes in the environment have led to an increase in the average weight, genetic factors are largely responsible for the variability in individuals' weights. In a population study of 500 adoptees, there was no correlation between the BMI of the adoptive parents and the adoptee, whereas the BMI of the biological parents correlated strongly with that of the adoptees.[2] In a related twin study, the concordance for BMI at ages 20 and 45 was twice as high for

monozygotic twins compared with dizygotic twins.[21] Ravussin and coworkers[22] measured 24-hour energy expenditure in Pima Indians and demonstrated that the observed basal metabolic rate had a significant genetic component and predicted subsequent long-term weight gain. Many individuals appear to be in double jeopardy for becoming obese by inheriting a complement of "fat-avid" genes and living in a "high calorie" environment.

Is there a lipostat?

The body has a highly regulated system that controls the content of fat, which may have evolved during a "low-calorie" epoch when rapid, efficient storage of ingested calories in low-maintenance adipocytes conferred a survival advantage.[23] In today's calorie-rich environment, this fat-storage system results in obesity. Many recent studies in humans and laboratory animals have demonstrated the existence of this lipostat and have led to the identification of some of the molecules involved. The adipocyte was once considered a passive recipient of excess calories. Today, the regulation of fat content is considered a complex system involving mutual feedback between the brain and the target cell (the adipocyte), similar to the regulation of intravascular volume or serum electrolyte levels. The body influences our urge to eat just as strongly as it regulates our urge to drink water and increase salt intake. Although eating is under unconscious as well as conscious control, the adjustment of basal metabolic rate is under unconscious control alone.

Approximately 60% of human energy expenditure is due to *resting* energy expenditure and only 30% is due to nonresting energy expenditure. The remaining 10% goes to digesting food.[24] A recent study of the effects of forced weight gain or loss on changes in energy expenditure showed that changes in body weight led to persistent changes in the basal metabolic rate that opposed the initial change in weight. The basal metabolic rate of subjects who gained 14 pounds increased by about 400 kcal/day, and the basal metabolic rate of subjects who lost 14 pounds decreased by about the same amount. The authors concluded, "Physicians should be aware that for some obese patients the achievement of what is considered to be a more healthful body weight may be accompanied by metabolic alterations that make it difficult to maintain the lower weight."[25]

Some molecules involved in controlling the lipostat

The *ob* mouse and leptin. Important details are emerging about how the adipocyte sends its signal to the brain (the afferent pathway) and how the brain regulates the adipocyte (the efferent pathway). Adipocytes have endocrine gland-like functions, and the concept is slowly emerging that the brain controls the size of the adipocyte 'gland' by controlling feeding behavior and activity levels (conscious control) as well as basal metabolism, pituitary output, and autonomic output (unconscious control).

The obese (*ob*) mouse was one of the first genetic animal models of obesity. Although it was suspected for decades that the defect involved an adipocyte "signal," it was not until recently that the gene was cloned.[26,27] The protein product of the *ob* gene has been called leptin, and the homologous gene has been cloned in humans. Leptin levels in humans correlate with the degree of adiposity, with obese subjects having serum leptin levels two to four times higher than nonobese subjects.[28] Human leptin injected into the *ob* mouse leads to significant weight loss in the *ob* mouse. It is noteworthy that when the *ob* mouse loses its excess 30% body fat, it does so by a combination of decreased caloric intake, increased activity level, and increased basal metabolic rate. The isolation of human leptin was a significant breakthrough in understanding the regulation of fat content in humans.

The diabetic (*db*) mouse is a model of early-onset obesity closely related to the *ob* mouse. It has been known from parabiosis experiments that a serum factor from the *db* mouse could cure the *ob* mouse, leading to the hypothesis that the *db* defect involves the receptor for the product of the *ob* gene. This has now been shown to be probable because injection of leptin leads to prompt down regulation of elevated neuropeptide Y levels in the hypothalamus of the *ob* mouse (bad leptin, good leptin receptor) but not in the hypothalamus of the *db* mouse (good leptin, bad leptin receptor).[29] Initial enthusiasm about the potential role of leptin in treating human obesity was so high that one pharmaceutical company paid $20 million for rights to the use of leptin before any experiments had been performed in humans. Whether leptin actually has therapeutic value remains to be seen; in common obesity, there appears to be "leptin resistance" rather than a deficiency of leptin. What is clear is that humans have a feedback circuit between the brain and the body that regulates fat content, and that leptin made by fat cells acts in the *afferent* limb of the circuit to signal to the brain the level of the body's fat stores.

The beta-3 adrenergic receptor

For regulating fat content, the efferent pathway from the brain to the body is likely to involve the beta-3 adrenergic receptor. Recent studies have shown that mutations in the beta-3 adrenergic receptor gene are linked to human obesity and non-insulin-dependent diabetes mellitus (NIDDM). The beta-3 adrenergic receptor mediates lipolysis in white adipose tissue and thermogenesis in brown adipose tissue. Three recent studies included patients homozygous for the same tryptophan-to-arginine mutation in the beta-3 adrenergic receptor.[30-32] In Pima Indians, there was a lower resting metabolic rate and earlier onset NIDDM.[30] In a Finnish cohort, there was early-onset NIDDM and features of the insulin-resistance syndrome (hypertension, glucose intolerance, hyperinsulinemia, and increased ratio of waist to hip circumference).[31] In a French cohort, there was increased capacity to gain weight.[32] These studies thus identified another gene in what will ultimately prove to be a multigene predisposition toward obesity. They also indicate that beta-3 analogues that have minimal effect at beta-1 and beta-2 receptors may one day prove to be useful antiobesity agents.

Discussion

It appears highly unlikely that a single cause of obesity, a so-called fat gene, will ever be identified. However, with every new pathway identified and with every molecule isolated that contributes to the body's regulation of fat storage, whether it be leptin analogues or neuropeptide Y antagonists or beta-3 adrenergic analogues, it becomes easier to understand how some individuals are born with a predisposition toward obesity. It also becomes easier to see how these newly identified molecular pathways represent novel and important potential targets for antiobesity therapy.

Despite recent advances in identifying individual molecules involved in weight regulation, there is still a large gap between what we know and what we can do for obese patients. Although a rational and supportive approach to both exercising and restricting caloric intake helps some patients (and should be tried in all), more effective therapies for obesity would be immensely helpful. Indeed, medical therapies are available that do lead to prolonged and significant weight loss and are better tolerated than is generally appreciated.

In a controlled, double-blind, 24-week trial, Weintraub and coworkers[33] showed that a weight loss of 20 pounds could be achieved using a combination of fenfluramine and phentermine. The weight loss was significantly greater than with placebo and the incidence of adverse side effects was not significantly different from placebo.

Although chemically related to stimulant anorexiants, fenfluramine and its analogue dexfenfluramine are thought to suppress appetite and increase satiety via central serotonergic mechanisms, with side effects that are typically described as sedating[34] and with an uncommon but well-documented incidence of pulmonary hypertension. Phentermine is an anorectic agent that has central catecholaminergic properties that synergistically act with fenfluramine to suppress appetite and that has stimulating side effects that typically oppose the side effects of fenfluramine. This combination therapy has been proven to be effective over long time periods, but works only during the period of therapy; most weight lost during therapy is regained when therapy is stopped. Dexfenfluramine recently received FDA approval as long-term therapy for obesity.

Whether the majority of obese patients and their physicians agree that combined therapy with fenfluramine and phentermine is worth the effort remains to be seen. Because many physicians really do not view obesity as a medical illness akin to diabetes or hypertension, they do not prescribe medication that could significantly improve their patient's quality of life. With our new understanding of how the body attempts to regulate fat content, however, it is likely that the day draws near when most physicians view obesity as an illness to be managed for life rather than a behavior to be discouraged.

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Marijuana use increasing among teenagers

According to the 1994 National Household Survey on Drug Abuse, an average of 10 million Americans use marijuana each month. NIDA's 1995 Monitoring the Future Study found that from 1991 to 1995, marijuana use in the 12 months before the surveys rose from 23.9% to 34.7% among the nation's 12 graders; from 16.5% to 27.7% among 10th graders, and from 6.2% to 15.8% among 8th graders. Source: *NIDA Notes* 1996;11(2):15.

Ossification of the coracoacromial ligament: association with rotator cuff pathology of the shoulder

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ABSTRACT: *The objective of this study was to assess the association of ossification of the coracoacromial ligament (CAL) observed on conventional radiographs with the presence of rotator cuff pathology as demonstrated by magnetic resonance imaging (MRI), arthrography, and/or surgery. Conventional radiographs (internal and external rotation and outlet and axillary views) on eight patients showed ossification of the coracoacromial ligament. Rotator cuff integrity was assessed by physical examination in all 8 patients, by arthrography in 3 patients, and by MRI in 2 patients. Surgery was performed on four of the patients. Physical examination showed impingement findings and decreased rotator cuff strength suggestive of rotator cuff disease in all eight patients. The arthrograms and MRI examinations showed the presence of full-thickness rotator cuff tears. Four of these patients underwent surgery and the rotator cuff defects were confirmed and repaired. Identification of ossification of the CAL on conventional radiographs should be recognized as strongly suggestive of associated significant rotator cuff pathology.*

The coracoacromial ligament (CAL) represents the anterior-superior portion of the coracoacromial arch. As such, it may contribute to symptomatic impingement on the anterior portion of the supraspinatus tendon and participate in the pathogenesis of rotator cuff tears.[1,2] Factors related to rotator cuff impingement and chronic injury include the relative orientation and thickness of the CAL, the angulation and shape of the anterior acromion, and the patient's activity history (occupational or recreational stresses that



Figure 1. Coracoacromial ligament osteophyte. The frontal radiograph reveals an osteophyte at the coracoacromial ligament attachment site (arrow). Shoulder arthrography performed on this patient was positive for a full-thickness rotator cuff tear.

may exacerbate impingement).[1-3] Rarely, ossification of the CAL develops; it is usually a response to prior injury or related to chronic degeneration secondary to repetitive stress. In some patients, calcium deposition may be related to abnormal calcium or phosphate metabolism.[4,5] A previous report stated that CAL ossification or calcification never occurred as an isolated finding without calcification of the coracoclavicular ligament.[4]

The current report describes the clinical and radiologic findings in eight patients with isolated ossification of the CAL.

Subjects and methods

The 8 study patients (6 men) ranged in age from 49 to 85 years. Three subjects gave a history of specific trauma involving the symptomatic shoulder. Conventional radiographs were obtained for all eight patients and all had ossification or calcification in the region of the coracoacromial ligament (**Figures 1 and 2**). Three subjects underwent arthrography and two patients had magnetic resonance imaging (MRI) scans. Surgery was performed on four of these patients.

Results

Physical examination of the eight patients showed a decreased and painful range of motion of the involved shoulder, particularly with abduction and forward flexion, that was compatible with rotator cuff disease. Decreased strength of the rotator cuff and crepitus during range of motion examination were also observed. Arthrograms obtained for three patients and MRI examinations of two patients showed the presence of full-thickness rotator cuff tears.

Complete rotator cuff tears were confirmed in the four patients who underwent surgery. The resected surgical specimens consisting of the anterior acromion and 1 to 3 cm of attached CAL showed that the CAL was extremely rigid, sharp, and almost knife-like in two cases. A typical specimen showed an osteophyte measuring 0.7 to 1.8 cm in length embedded within the ligament adjacent to the anterior acromion (**Figure 3**). There was extensive degeneration of the CAL characterized by collagen fraying and chondroid metaplasia. The chondroid areas in all cases were undergoing enchondral ossification at the tip and edges of the osteophyte (**Figure 3**). One of the surgically treated patients underwent MRI evaluation, which showed a



Figure 2A.

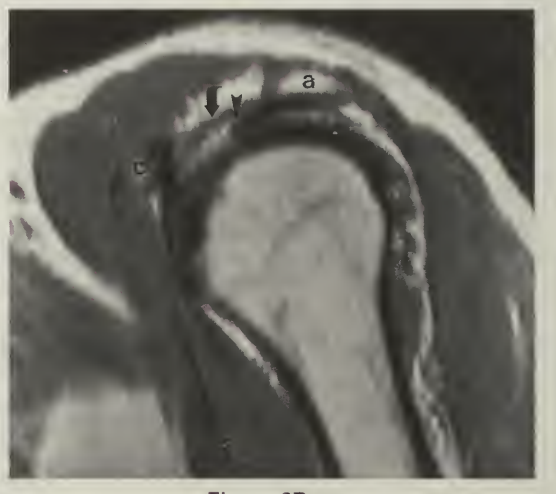


Figure 2B.

Figure 2. Thickened coracoacromial ligament with osteophyte. A prominent osteophyte involving the coracoacromial ligament attachment (arrow) is observed on this scapular lateral radiograph (A). The oblique sagittal MRI scan (TR 3000/TE 21) (B) demonstrates the osteophyte (arrowhead) and reveals marked thickening of the coracoacromial ligament (curved arrow). Coracoid (c). Acromion (a).



Figure 3A.

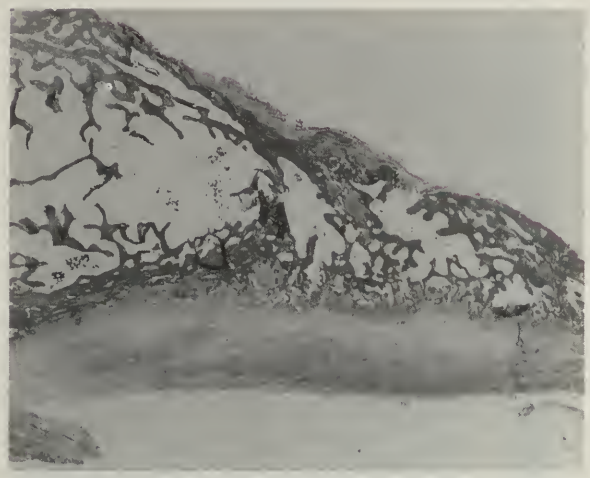


Figure 3B.

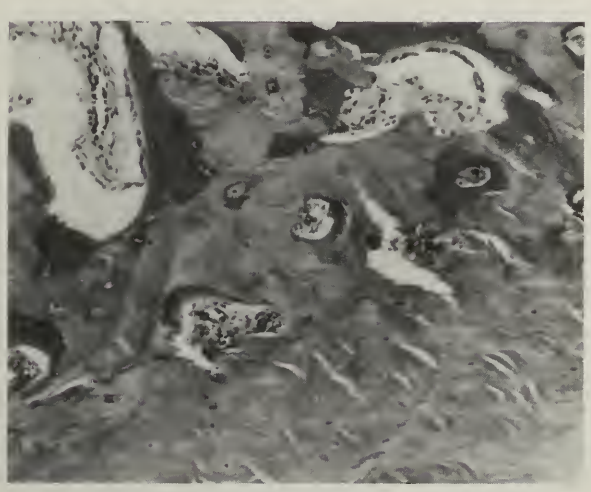


Figure 3C.

Figure 3. Coracoacromial ligament osteophyte. A specimen radiograph (A) and low power photomicrograph (H&E, 5X) (B) of the resected acromion demonstrate osteophyte formation (arrow) involving the attachment site of the coracoacromial ligament. A high power photomicrograph (H&E, 145X) (C) shows focal enchondral ossification within the fibrocartilaginous portion of the coracoacromial ligament.

full-thickness tear involving the distal supraspinatus tendon and marked thickening of the CAL (**Figure 2**). Another patient had experienced shoulder pain that was suggestive of impingement without clinical evidence of a rotator cuff tear since 1988, when a radiograph showed no CAL ossification (**Figure 4A**). In 1993, because of increasing pain and decreasing strength, conventional radiographs were repeated, which showed the appearance of CAL ossification (**Figure 4B**). An MRI scan confirmed a rotator cuff tear and showed marked thickening of the CAL (**Figures 4C and 4D**). The four patients who had surgery recovered good rotator cuff function.

Discussion

The coracoacromial ligament acts with the acromion and coracoid process to limit superior movement of the head of the humerus. It also separates the deltoid and rotator cuff muscles.[6] The fibers of the CAL fan out along the under surface of the acromion and are extremely firm and unyielding, suggesting its role in rotator cuff impingement. The fibers near the acromion form a fibrovascular layer before attaching to the bone; chondrocytes can be found at this transitional area, between ligament and bone. Fibrocartilaginous formation at the tip of the spur can represent a site of enchondral ossification. Bone spurs probably develop because of tensile forces transmitted through the ligament, associated with thickening of the fibrocartilaginous layer and disruption of the anchoring fibers of the CAL at the anterior portion of the acromion.[7] Additional ultrastructural changes in the CAL in patients with impingement include fibrillation of the collagen bundles, micro-tears, and fatty infiltration of the substance of the ligament.

In 1988, Morimoto and colleagues[5] described a single case of a calcified CAL in an athlete with an incomplete rotator cuff tear. Our experience, in which complete rotator cuff tears were identified in association with ossification of the CAL, further documents the association between CAL pathology and rotator cuff pathology. Our observation of chondroid metaplasia with enchondral ossification discovered within the surgical specimens also agrees with the suggested pathogenesis of anterior acromial osteophyte formation.

The relationship between impingement and rotator cuff tears remains controversial.[1,2,8] Many investigators believe rotator cuff tears are the result of impingement; others feel that cuff tears are initiated not by impingement but by intrinsic degenerative changes in the supraspinatus tendon which increase with age. Subtle instability, anatomy of the acromion, and trauma also may play a role.[3,9,10] As the supraspinatus tendon degeneration progresses with age, upward migration of the humeral head occurs with secondary impingement. This upward migration stresses the CAL and contributes to the changes within the ligament seen on radiographs.

Despite the dispute as to causative and temporal sequencing of events associated with supraspinatus tendon pathology, ossification of the coracoacromial ligament appears to possess



Figure 4A.



Figure 4B.



Figure 4C.



Figure 4D.

Figure 4. Progressive osteophyte formation at the coracoacromial ligament insertion. A scapular lateral radiograph (A) obtained in 1988 shows no spur formation. A repeat radiograph (B) obtained in 1993 shows appearance of an osteophyte at the coracoacromial ligament insertion (arrow), coinciding with increasing shoulder pain and disability. The oblique sagittal MRI scan (TR 3000/TE 21) (C) performed in 1993 show thickening of the coracoacromial ligament (curved arrow) and a full thickness rotator cuff tear (arrowhead) is identified on the oblique coronal image (TR 3000/TE 21) (D).

a strong association with significant rotator cuff pathology. Recognition of this finding on conventional radiographs in patients with impingement symptoms has important implications as to a probable loss of rotator cuff integrity.

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The Health Care Quality Improvement Program and the Cooperative Cardiovascular Project in Maryland

In August 1992, the Health Care Financing Administration (HCFA) announced the implementation of a new approach to quality assurance for Medicare patients. The major purpose of the initiative, entitled the Health Care Quality Improvement Program, is to move quality assurance activities for Medicare patients away from the old process of identifying and challenging individual clinical questions of commission or omission to a new process of helping providers improve the mainstream of medical care.[1]

The first specific national effort under the Health Care Quality Improvement Program is the Cooperative Cardiovascular Project (CCP). The CCP is a study of the care rendered to Medicare patients with the diagnosis of acute myocardial infarction. Acute myocardial infarction was selected as the subject of study because of its high incidence, morbidity and mortality impact on the Medicare population, and the availability of widely accepted published guidelines for the care of patients with this disease. The design of the study is a retrospective review of patient records with attention given to nine specific quality indicators. These indicators are quality sensitive performance measures derived from clinically accepted and published guidelines for the care of patients with acute myocardial infarction.[2]

The CCP underwent a developmental study phase, the results of which were published in the spring of 1995.[3] That pilot study evaluated the care given to 16 000 Medicare patients treated for acute myocardial infarction in Iowa, Arkansas, Wisconsin, and Connecticut between June 1992 and February 1993. The study had two primary findings. First, clinical exclusion criteria for standard acute myocardial infarction therapies are very prevalent among Medicare patients. Up to 90% of patients are ineligible to receive fibrinolytics because of time sensitive and comorbidity exclusion criteria. Second, of the patients ideally eligible for acute myocardial infarction therapies, significant proportions do not receive these therapies; only 83% received aspirin during hospitalization and only 45% received beta blockers at discharge. Based on the results of the CCP pilot study, HCFA concluded that there were opportunities for improvement in the care of Medicare patients with acute myocardial infarction, and the CCP was extended to all hospitals treating Medicare patients.

Preliminary analyses of the aggregate Maryland data show that 87% of Maryland patients received aspirin during their hospitalizations and 66% received beta blockers at discharge. In addition, 23% of the pilot project patients who were smokers had smoking cessation advice documented in their medical records, while such counseling was documented in 43% of Maryland patients.

Delmarva Foundation for Medical Care, Inc. (DFMC), is the peer review organization contracted by HCFA to provide quality improvement assistance for Maryland. DFMC now has the hospital-specific CCP data for all acute care hospitals in Maryland. The data were collected by the Clinical Data Abstraction Center, which is responsible for abstracting medical records in all Medicare-participating hospitals in the eastern United States. DFMC is scheduling a site visit with each hospital for the purpose of presenting hospital-specific CCP data. The data will be presented in both a written narrative format, as well as a 45-minute personal presentation that is suitable for a medical staff continuing medical education meeting or a hospital Quality Council meeting. Hospital-specific data on nine process indicators and three outcome indicators will be presented and compared to both aggregate state data and aggregate hospital size peer group data.

Following presentation of the data, each hospital will be asked to review its own data set to determine where improvement in care can be effected. Once areas for

possible process improvements have been identified, hospitals will develop a plan for improvement in care for acute myocardial infarction patients, implement the plan, measure and evaluate success, and report the results of their activities to DFMC. Active participation in the CCP and utilization of the data provided can be used to fulfill JCAHO requirements for clinical quality improvement programs for accreditation purposes. When the aggregate data from the state of Maryland are collected and analyzed, DFMC will submit these findings for publication in the *Maryland Medical Journal*. In adherence to strict confidentiality policies and protocols, disclosure of specific hospital or physician providers is prohibited.

The Health Care Quality Improvement Program and the Cooperative Cardiovascular Project represent a new direction in assuring clinical quality improvement for Medicare patients in Maryland. These programs offer new opportunities for cooperation among the physicians and hospitals of Maryland to improve the care rendered to Medicare beneficiaries. In addition, both physicians and hospital administrators may be interested to know of the vast amounts of Medicare data available to peer review organizations nationwide. These data are valuable when aggregated for providing statewide comparative information for individual hospitals or for allowing comparisons based on hospital peer groupings. Hospital peer groups can be displayed according to bed size, teaching and nonteaching, and urban or rural setting. We urge Maryland physicians to become informed about the CCP results of each hospital in which they enjoy staff privileges and to participate in the ensuing hospital quality improvement projects.

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What to write for

The NIH consensus development statement on "Physical Activity and Cardiovascular Health" is now available. To obtain a copy, contact William H. Hall, Director of Communications, Office of Medical Applications of Research, National Institutes of Health, Federal Building, Room 618, 7550 Wisconsin Avenue MSC 9120, Bethesda, MD 20892-9120; telephone 301-496-1143.

Medical writing: preventing slipped disk(ette) syndrome

Journals are increasingly instructing authors to send a copy of their submissions on diskette (soft copy) along with the printed version (hard copy). The intention is to save a lot of time by avoiding keyboarding. However, the requirement to send in a diskette has had the unintended consequence of giving rise to a new disorder, "slipped disk(ette) syndrome," that has struck many editorial offices.

The instructions to authors describe requirements for the proper submission of diskettes, just as they describe requirements for the submission of printed copy. Slipped disk(ette)syndrome, which used to be called "sloppy floppy," occurs when an editor finds a problem with the diskette.

The syndrome almost always occurs because an author failed to follow the instructions to authors. Examination of case-related diskettes has ruled out the possibility of transmissible diskette-borne disorders, such as viruses and worms.

Editors have been known to get headaches during episodes of slipped disk(ette) syndrome. However, authors might find the sequela of slipped disk(ette) syndrome to be of greater consequence: their manuscripts might be delayed in processing.

Slipped disk(ette) syndrome is entirely preventable if authors would follow these tips:

- Follow the instructions to authors. Some journals request that a diskette be included in the initial submission. Others ask for a diskette only after the submission has been accepted.
- Be sure that the file on the diskette matches the version on the hard copy. If in doubt, print out some pages from the diskette version. Compare them with the hard copy.
- Label the diskette on the outside. Include the name of the first author and the first few words from the paper's title, or use the running header (such as Altus, Slipped diskette). Identify the word processing program (such as WordPerfect 6.1/Windows). Also, identify the journal; some offices handle more than one.
- Consider including a simple letter that explains the contents of the files on the diskette. Include this letter in a separate file named "README." Some journals request the tables be on a file separate from the text. A README letter can explain this. Print out a copy of README and attach it to the diskette.
- Protect the diskette by enclosing it in a diskette mailer, which is available from office supply stores.

Remember: Only YOU can prevent slipped disk(ette)syndrome!

(Note: I have made every mistake described in my articles. In "Eat your vegetables—and check your references!" [Md Med J *1996;7:568-569], my reference 5 should have been: Clarfield AM. The case of the questionable reference.* Can Med Assoc J *1989;140:844-845. I regret the error.)*

MICHAEL S. ALTUS, PH.D.
Dr. Altus, a member of the board of the Mid-Atlantic Chapter of the American Medical Writers Association, is a freelance medical writer and editor. He lives in Baltimore.

Definitively speaking

Efficacy describes how well a treatment works under experimental conditions; *effectiveness* describes how well it works under the usual conditions of patient care.

Source: Raschke RA, Gollihare B, Peirce JC. The effectiveness of implementing the weight-based heparin nomogram as a practice guideline. *Arch Intern Med* 1996;156:1645–1649.

The Stonestreet Medical Museum: rural medicine in Montgomery County



One of Maryland's little known treasures is the Stonestreet Medical Museum of the Montgomery County Historical Society in Rockville. Less than five miles from the high technology of the National Institutes of Health, it reflects the life and work of Dr. Edward Elisha Stonestreet, who practiced in Rockville for 51 years from 1852 to 1903. The small building itself is one of a handful of nineteenth century freestanding medical offices remaining in the United States.

Today the Montgomery County Historical Society maintains the medical office as a museum with a collection of more than 2,500 instruments, books, charts, and pharmaceutical materials related to nineteenth century rural medicine. It is open to the public from Tuesday to Saturday from 12 to 4 and the first Sunday of the month from 2 to 5. In addition, more than 3,500 Montgomery County school children visit the museum each year as part of their fourth grade Maryland history curriculum. They are fascinated by the "real skeleton" hanging in the office, question how doctors made their medicines when there were no major drug emporiums, and are intrigued by all the shiny but strange medical instruments. The question most frequently asked is, "Did they really use leeches?" For these youngsters, a visit to "Dr. Stonestreet's Office" is indeed a trip to the past.

Rockville's Dr. Stonestreet

Edward Elisha Stonestreet received his medical degree in 1852, at the age of 22, after two years in medical school at the University of Maryland. Before going to medical school, he "read medicine" with Dr. William B. Magruder of Olney, Maryland. In March 1853, the *Rockville Journal* and *Montgomery County Advertiser* carried announcements that Dr. Stonestreet was opening his practice in an office built for him by his father next to the family residence. The small building, now at the historical society, was originally on the corner of East Montgomery Avenue and Monroe Street in Rockville, about two blocks east of Rockville's historic Red Brick Courthouse.

The year 1852 was a busy time for Dr. Stonestreet. On October 14, just before opening his practice, Dr. Stonestreet married Martha Rebecca Barry (1831-1902). They ultimately had eight children, and six daughters lived to adulthood. In 1855, he purchased the family home and land from his father, and his parents moved to Darnestown. Later, Dr. Stonestreet built homes for his daughters nearby in Rockville. His son-in-law and a grandson also practiced medicine in Montgomery County. His grandson, Dr. William A. Linthicum, retired in 1988 after 60 years of practice in Rockville.

In the museum are photographs of the Stonestreet family and residence as well as Dr. Stonestreet's license to practice. His license was the result of an act passed in January 1867 by the General Assembly of Maryland "for the protection of the public against Medical Impostors and for the suppression of the crime of unlawful abortion." It was signed by three local practitioners.

Dr. Stonestreet practiced general medicine, which included obstetrics and general surgery. Because of the bad roads and lack of transportation, many patients did not go to the doctor's office. Dr. Stonestreet made his rounds by horse, buggy, or sleigh. For many years he carried his medicine in a saddle bag when he rode his horse named Grant. Since Montgomery County was a rural area, people did not have telephones. Family members or friends had to "fetch the doctor." The telephone now in the museum is from the last years of Dr. Stonestreet's practice, about 1900.

Local patients came to the office for treatment. Dr. Stonestreet's office hours were 8 to 10 and 4 to 6. His residence had an informal sitting room on the ground floor level under the front entrance stairs. This room was also used as a small office for receiving his "select patients" for treatment, who would probably include the family, close friends, and influential people of Rockville. His inventory shows an operating chair in this room. It would have been used for minor surgery.

Rockville was just a little country town, and Dr. Stonestreet was a typical country doctor. He was very popular and well liked. He liked to entertain children with stories, and he was active in church and civic groups.

During the Civil War, Dr. Stonestreet was commissioned in August 1862 as examining surgeon of the local draftees for the Union Army. He resigned in October 1862, claiming ill health prevented him from fulfilling his military duties. He also served two tours as a "contract surgeon" with the Union Army from September 1862 to January 1863, and from February 1863 to June 1863.

Along with his duties as a general practitioner, Dr. Stonestreet was on the board of directors of the Rockville Cemetery Association in 1880, and he was the physician for the County Alms House in 1881. He was a commissioner for Rockville from 1882 to 1888 and stayed on as a member of the town council through 1890. In 1888, he was appointed by the County Commissioners to "a permanent committee on the sanitary condition of the county." That committee was later designated the Board of Health.

Dr. Stonestreet was active in what is today the Montgomery County Medical Society, serving as secretary-treasurer in 1859 and as president in 1892. He died in 1903 while going to visit a patient. He was 74 years old.

A little building with a long history

After Dr. Stonestreet's death in 1903, his office building served as Rockville's first public library from 1920 to 1936. In the 1940s, the building was moved across the street and became the meeting room for a Boy Scout troop. A few years later, the building was moved to the carnival grounds of the Rockville Volunteer Fire Department and used as an office building.

In October 1971, the Rockville Volunteer Fire Department donated the building to the Montgomery County Historical Society. The building moved once more in 1972, when members of the fire department, city government, Montgomery County Historical Society, and friends brought it to its present home on the grounds of the historical society at 111 West Montgomery Avenue in Rockville.

At that time, the building was covered with stucco and the trim was painted red. With the information gleaned from architectural research and old photographs, the historical society extensively restored the building to look as it did when it was Dr. Stonestreet's office. Today it is furnished as a nineteenth century country doctor's office and used as a museum. The office hours sign on the front of the building is the one used by Dr. Stonestreet. The stepping stone with the doctor's name was originally used in front of his home.

The medical collections

The Montgomery County Historical Society, under the leadership of Millicent Gay, curator, has collected the medical, dental, obstetrical, and surgical instruments and apothecary equipment now seen in the museum. The various instruments displayed are those used by a nineteenth century country doctor such as Dr. Stonestreet. In addition, there are more than 240 nineteenth century medical reference books, pamphlets, doctor's record books, and texts covering standard branches of medicine and surgery, as well as alternative medicine, midwifery, pharmacology, infectious diseases, public health, and military medicine.

Unlike today's large medical office complexes, nineteenth century offices were small and very simple. Modern diagnostic equipment did not exist. The stethoscope was just beginning to be developed in 1816. When Dr. Stonestreet started practice, it was a wooden tube with a flared end to place on the chest and a flat round end for one ear, similar to the wooden one in the museum. Hypodermic syringes were first used in America during the Civil War. Scarifiers, lancets, and leeches were used for blood letting, then a common form of treatment.

The office would have been heated by a stove in the center of the room. The stove now in the museum is a wood burning model c. 1860. There would have been a partition or screen dividing the examining area from the waiting area. Water pitchers, bowls, and chamber pots were necessary as there was no running water. Spittoons were also a necessity in that era. The mahogany examination table is very similar to the one used by Dr. Stonestreet.

The museum collection includes an articulated skeleton, which was a reference for the doctors in repairing fractures or bone injuries. In one case are displayed an arm and hand, skull, femur, lumbar vertebrae, rib, and pelvis. Radiographs were not invented until 1895, and it was many years later that the x-ray machine was perfected and used by doctors for visualizing fractures. The museum also displays an 1886 physiological cardboard mannequin that was referred to by the doctor when trying to diagnose the cause of illness and pain or before a surgical procedure.

When Dr. Stonestreet was in practice, doctors made their own pills and medicine as needed in their office or the patient's home, using chemicals and medicinal plants they carried in their case or saddle bag. Often doctors would get the local apothecary (pharmacist) to make up their medical formula and package the medicine in a container bearing the doctor's personal label. Many of the items in the museum's apothecary case were from the former Vinson's Drug Store in Rockville. Visitors can see mortars and pestles, portable drug scales, a pill making machine, pill tile, suppository press, powder folders, and an exhibition of patent medicines.

Community recognition

The museum has received support from Montgomery County's medical community. In 1994, when the museum required a major restoration due to a cracked and failing foundation, the Montgomery County Medical Society made a generous grant to help save this unique little museum. The value of the Stonestreet Medical Museum was also recognized with grants from Preservation Maryland, the Maryland Historical Trust, the Helen Pumphrey Denit Trust, and private donors.

MILLICENT GAY and JANE NORTH
Ms. Gay is curator of the Stonestreet Medical Museum and the author of papers on Dr. Stonestreet. Ms. North is development director of the Montgomery County Historical Society. ■

. . . . . .

Physicians find this museum fascinating, and the Montgomery County Historical Society welcomes your visit. The historical society also is eager to receive donations of medical artifacts appropriate to the museum. The museum is open Tuesdays through Saturdays from 12 to 4 and the first Sunday of the month from 2 to 5 throughout the year. There is a small admission charge of $3.00 for adults, which also includes a tour of the c. 1815 Beall-Dawson House. A special tour of the medical museum with Curator Millicent Gay can be arranged by calling 301-340-2825.

The Montgomery County Historical Society is located at 111 West Montgomery Avenue in Rockville, MD 20850, near the Route 28 East exit from Interstate 270. For directions or more information call 301-762-1492 or FAX to 301-340-2871.

The Scott-Key connection



Francis Scott Key, age 14. Reproduced from Delaplaine's *History of Francis Scott Key*; *used with permission of the Delaplaine family.*

When Francis Scott Key was born at Terra Rubra on August 1, 1779, he was given the name of Francis after his grandfather, Francis Key. His middle name, Scott, was added as a tribute to Dr. Upton Scott of Annapolis, the husband of his great aunt, Elizabeth Ross Scott.[1]

The Keys and the Scotts were not only related by marriage, but apparently also had business ties. In 1767, Francis Key and Dr. Scott acquired a tract of 3,677 acres of land in Frederick County. The land was patented under the name of Runnymeade. The Key family had lived in Maryland for several generations. A tract of 1,865 acres had been patented under the name of Terra Rubra to Philip Key, the progenitor of the Key family in America.

Scott

Upton Scott, born in County Antrim, Ireland, in 1722, was one of eight children born to Francis Scott and Margaret Craig.[2] Early in his career, he served in the British Army and participated in various campaigns in Scotland. He then attended the University of Glasgow and in 1753, at the age of 31, received his medical degree. He came to America with Horatio Sharpe, the newly appointed governor of the province of Maryland, as his personal physician. Dr. Scott later held various administrative offices under the proprietary government and in 1770 became secretary to the current and popular proprietor, Governor Robert Eden.[3]

At the outbreak of the Revolutionary War in 1776, Dr. Scott left Maryland and together with Eden returned to England. Toward the end of the conflict in 1780, he returned to his home in Annapolis and was welcomed by his fellow citizens. Former Governor Eden accompanied him and resided at the Scott mansion until his death in 1784.

From 1768 to 1770, Dr. Scott had his home built by William Buckland (1734-1774), an emigre who was a master mason, joiner, and architect. Buckland also built a number of other historic homes in Virginia and Maryland. R.T. Haines Halsey, an authority on early American houses, concluded that in Annapolis he created not only the Scott mansion, but the Brice house, the Rideour house, the Chase-Lloyd house, and the Hammond house.[4,5]

Key

At the age of 10, Francis Scott Key was enrolled in the grammar school of St. John's College in Annapolis. He was invited to make his home with the Scotts, who lived less than a mile from the college campus.



Entrance facade of the Scott Mansion, Annapolis, Maryland, 1996.



Garden facade of the Scott Mansion, Annapolis, Maryland, 1996.

On November 11, 1789, he began his studies, and for the next six years during the school year he lived at the Scott mansion on Shipwright Street. There he found life relaxed and pleasant. Aunt Elizabeth provided affection and spiritual guidance. Each night, she led the young student in prayer for the protection of the "Providential Arm."[1] The elderly physician was retired from practice and reminisced about his school days in Ireland and of his exploits with General Wolfe in Scotland. Despite periodic episodes of gout, he was able to tend his flower garden, which stretched behind of his house down to the waterfront.

The Scott's neighbors were the Carrolls, the Hammonds, the Chases, and later the Lloyds, who in 1771 purchased the unfinished Chase house. They used this large, three-story home as their townhouse, and young Frank, as his fellow students called him, was attracted by Mary Tayloe Lloyd, a popular and vivacious young lady who eventually became Mrs. Francis Scott Key.

In Cordell's imagined arrival of the founding members on June 2, 1779, in Annapolis for the first meeting of the newly incorporated Medical and Chirurgical Faculty of the State of Maryland, he described Dr. Scott as "venerable with his seventy-seven years, precise, practical and business like" and "the one most suited by age, character and experience to fill the presidential chair."[6]

Despite his initial reluctance, Dr. Scott was unanimously elected the first president of Med Chi. Again, in June 1880, he was re-elected, but declined the office because of his advanced age and poor health. In his place, Dr. Philip Thomas of Frederick was chosen to serve as the society's second president. Dr. Thomas continued as head of Med Chi for 15 years. His term of office ended unexpectedly when he and his son, John Hanson Thomas, Esq., died within a week of each other in the spring of 1815 during the "prevailing" epidemic.[7] Dr. Scott died in 1814 at the age of 92.

HENRY V. CHASE, M.D.
Retired from the practice of internal medicine, Dr. Chase lives in Frederick, Maryland.

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Health care fraud enforcement initiatives in Maryland

In June 1996, the U.S. Department of Justice held a seminar for health care providers and attorneys in Baltimore's Inner Harbor. Entitled "Health Care Fraud Enforcement Initiatives In Maryland," the seminar included top level representatives from the U.S. Attorney's Office, the Maryland Attorney General's Office, the Federal Bureau of Investigation, the Health Care Financing Administration, the Maryland Medical Assistance Fraud Unit, the Office of the Inspector General, the National Health Care Anti-Fraud Association, Blue Cross Blue Shield of Maryland, and two private practice attorneys who participate in *qui tam* (whistle blower) cases.

The seminar was meant to be intense and it was. When I give fraud and abuse seminars, I am often met with comments at the end indicating that I have alarmed people immensely. I tell you now that what you are about to read alarmed me!

Since most of the practicing physicians in Maryland were not present at the seminar, they are therefore probably unaware of significant changes that have occurred. This article presents the substance of the seminar without any comments pro or con and leaves it to the reader to determine the potential impact on his or her practice.

Background

It is estimated that $80 billion is spent on health care fraud annually. Attorney General Janet Reno has declared that addressing this problem is her number two priority, second only to violent crime. According to the U.S. Chamber of Commerce, 4% to 15% of all expenses in health care involve fraud. This would mean that in Maryland alone, a minimum of $520 million is lost to fraud annually, and the final figure could be almost four times that amount.

Each U.S. Attorney's office has a health care fraud coordinator. A special grant has been given to the Maryland district for our state to be the prototype program for the nation. The FBI has noted "an extraordinary growth" in the number of health care fraud cases. In 1991, there were 361 investigations; as of June 1996, 1800 cases were pending. Even though 257 agents are now directly assigned to health care fraud, the director of the FBI has requested that the number be doubled.

Targets

Although there currently is no health care fraud offense law, some are pending in Congress. In the meantime, federal law enforcement officials are using mail and wire fraud statutes and the False Claims Act, which includes a section that states "knowingly or *should have knowledge of*" (italics mine). As Debra L.W. Cohen (special counsel to the deputy attorney general, Department of Justice, Washington, DC) stated at the seminar, prosecutors will use that section rather than the section pertaining to "reckless disregard" because the burden of proof is simpler. They are also seeking to strengthen current penalties.

> *"Usually we find that when someone is committing fraud against the government, they are doing the same to the private side. . . . We are not out beating the bushes looking for health care fraud cases to investigate—we have more work than we can handle. . . . We do look at corporations . . . but we must still look at individuals. I think that we have done a very bad job of that. I think you will see a change—you will see a focus on individuals."*
>
> LYNNE A. HUNT
> *Chief, Health Care Fraud Unit*
> *Federal Bureau of Investigation*

The federal investigators have noted that durable medical equipment fraud and prescription diversions are prominent in Maryland. Also, "clinic mills" in personal injury cases are an extensive, growing problem. The FBI focus in Maryland is on physician services not being rendered or services delivered by unqualified individuals (e.g., nurse's aids, nurses, physical therapists).

When investigators in the Office of the Inspector General believe that the target

of the investigation is refusing to produce documentation, they can seek permission of the federal court to:

- exclude that individual or corporation from government programs for three to five years, depending on the circumstances;
- request immediate access to inspect records (if there is reason to believe they are in danger of being destroyed);
- include a compliance program as a part of settlements;
- use the "B7" exclusion, which allows a provider who has been prosecuted but *not* convicted to be excluded from a program.

Law enforcement officials currently have some problems in managed care cases that are capitated and in which the incentives are to deny care as opposed to providing it. Nevertheless, they feel that there will be fraud in Medicare managed care and are grappling with how to identify fraud, how to identify schemes, and how to review complicated arrangements. Although they are reluctant to become involved in appropriateness of care and quality of care issues, they feel that ultimately they will have to be involved.

In answer to a question about how the FBI selects its "targets," FBI supervisory special agent Kevin L. Perkins said the FBI cannot "witch hunt." They are usually contacted by someone affected by the health care fraud. There is a bounty for the whistle blower (known to the FBI as the relator). The amount is determined by the Department of Justice, but by law it runs 15% to 25% with government intervention and 15% to 30% without government intervention. The whistle blower is often someone who works within the system that is defrauding the government. In many cases, that person has first tried to bring the issue to the physician's or manager's attention and has thereupon been terminated or retaliated against or worse.

Compliance programs

According to those who presented the seminar, all practices of more than one or two physicians should have a compliance program in place. According to Lewis Morris, assistant inspector general for litigation coordination of the Office of the Inspector General, compliance programs are part of *all* their settlements. He said all "Corporate Integrity Programs" (i.e., compliance programs) should have detailed standards of procedures for employees. There should be a written code of ethics. There should be oversight personnel, including a compliance officer responsible for due diligence and effective communication. The message should be: "We play by the rules, we do not cut corners, and we do not use loopholes." There should be methods for monitoring compliance, including outside auditors or consultants in larger settings. Disciplinary measures for employees who violate the program should be stated and carried out. The Office of the Inspector General will ask how many employees have been sanctioned, disciplined, or fired for Corporate Integrity Program violations. Mr. Morris suggested implementing a hotline for employees to report violations to the compliance officer at their site. Corporate officers are being held responsible for actions of the corporation. He warned: "You will see a lot of pressure to put a compliance program in place. Do it on your own. Don't wait for us—it will be worse than if you do it yourself. The best thing you can do for yourself is change your corporate policy."

There are currently about 35 compliance programs in varying stages of use across the nation. The Office of the Inspector General has set up a "compliance officer" position in its office. Sometime in the near future, the Office of the Inspector General is expected to release a model compliance program based on the 35 programs already in effect. Following is a review of three of those programs. Notice how intricately involved in your business the government will be if it sets up a program for you. Pay especially close attention to the minutiae. Then decide. Do you need a compliance program?

> "*One of the first questions to you if you get in trouble will be, do you have a compliance program, and how many employees have been disciplined, terminated, or sanctioned as a result. Don't ever tell me* none."
>
> OFFICE OF THE INSPECTOR GENERAL

Clinical Practices of The University of Pennsylvania

On December 12, 1995, Clinical Practices of The University of Pennsylvania was found in

violation of the Health Care Financing Administration's teaching setting rules as they apply to billing of residents' services, upcoding, and documentation. As part of the settlement with the government, Clinical Practices of The University of Pennsylvania agreed to:

- centralize all practice business and financial functions under a chief financial officer;
- centralize all professional fee billing;
- centralize inpatient chart abstraction throughout the Medical Center;
- have the central abstraction office code inpatient professional fees; and
- implement the above before June 30, 1996.

In addition, over the next five years, Clinical Practices of The University of Pennsylvania must retain an independent auditing firm to review pro-fee billings annually beginning with 1995 fees. Copies of the audit reports for 1995 and 1999 will be provided to Health and Human Services, while 1996, 1997, and 1998 will be provided to the Medicare carrier for their region. An Office of Billing Compliance (OBC) must also be established by June 30, 1996. This office will report directly to the chief financial officer of The University of Pennsylvania Hospital System. The OBC will conduct internal audits and make recommendations to the chief financial officer as to modifications to improve compliance with billing requirements. The OBC will also review coding of pro-fee services and issue reports to the chief financial officer. Each chart abstractor will be reviewed twice annually. They established the medical center's professional fee billing review policy, which requires pro-fee billing review annually and spells out sanctions and corrective actions.

Mandatory education and training was begun in mid-1994, and must continue for at least the next five years. This program encompasses training and education provided to faculty, house staff, and billing personnel; orientation of new faculty, house staff, and billing personnel; and special training for chart abstractors.

By January 11, 1996, Clinical Practices of The University of Pennsylvania had to put in place two special telephone lines dedicated to billing information and reporting. This allows physicians or staff to obtain answers to any questions they may have about patient pro-fee billing from chart abstractors or other employees with billing expertise. If an abstractor is unable to answer a question, outside billing or legal advice must be obtained. This line is also available to report (on a confidential basis) questionable practices.

Caremark

The settlement agreement included a clause that stated that Caremark would notify all employees, independent contractors, agents, physicians with whom they have agreements, and all customers of its wrongdoing and the general provisions of its corporate ethics and compliance program. Caremark also agreed to notify Health and Human Services and the Department of Justice of any changes in positions or identity of any corporate directors or officers within 30 days of such change. One positive note for Caremark was a provision that it could petition Health and Human Services to release it from this five-year agreement after only three years based on the compliance program.

The agreement between the government and Caremark set up a "compliance committee" with a compliance officer appointed by the newly created "Audit and Ethics Committee of The Board of Directors of Caremark." The compliance committee must include the chief operating officer, the compliance officer, and an outside director of Caremark appointed by the chief operating officer. The current compliance officer is the chief executive officer and senior vice president of Caremark. The compliance officer must submit annual reports to the audit and ethics committee. The corporate ethics program must be given to all parties covered under the program.

Within eight weeks of employment, new employees must read the program, discuss it with their supervisor, and sign an attestation. Each current employee must re-read, sign, and date the corporate ethics program annually beginning July 1, 1995. All employees must receive one hour of training annually on the program.

Caremark may not conduct business with anyone, with or without pay, who has been excluded from a government program. Persons employed by Caremark who are charged

with health care offenses do not have to be terminated unless convicted, but must be removed from any position (including any corporate officer position) dealing with a government program until resolution of the charges.

There will be an annual certification program for management-level employees requiring them to discuss the ethics program with each employee under their supervision and be sure they completed the mandatory training. Managers must have explained to the employee that compliance with the program is a condition of employment and that sanctions including termination are available to the manager.

Before implementing any changes in billing procedures, Caremark must submit proposed changes to the appropriate Medicare contractor for review and approval. It must develop procedures, including training programs for employees in sales, marketing, and reimbursement operations to ensure proper copayment collection. Caremark will notify Health and Human Services within 60 days of compliance committee action regarding an employee. All incidents will be reported in an annual report to Health and Human Services.

No complaint received by an employee or through the Caremark Ethics Communication Line will be deemed privileged or subject to attorney-client privileges. As such, no in-house or outside counsel will be directly involved in the Ethics Communication Line. Furthermore, for Caremark to transfer or sell any of its business entities, it must notify Health and Human Services; list all provider numbers and anticipated dates of surrender; and list all corrective actions undertaken by Caremark within the past three years and a compilation of nonprivileged reports, findings, or recommendations issued in the past three years.

National Medical Enterprises

The agreement between National Medical Enterprises and the government does not allow National Medical Enterprises to rehire any former employees or operate new facilities for five years. If National Medical Enterprises acquires any new facilities due to a corporate acquisition, it must divest within 180 days.

National Medical Enterprises was granted only 90 days to have an outside professional organization review billing policies, procedures, and practices of all providers and facilities to ensure proper billing procedures. Any deficiencies are to be reported to Health and Human Services within 60 days of discovery. Prior to admission of any patient under a government program, National Medical Enterprises must obtain approval from a National Medical Enterprises official who is not an employee of that facility. Further, an independent peer review must be done quarterly of admission policies and practices, length of stay, and discharge and discharge planning and deficiencies must be reported to Health and Human Services within 60 days.

Payments to physicians in any capacity must be reported as well as the formula for making said payments. Outside counsel must approve all contracts with physicians. Outside accounting or law firms must review bad debt reporting procedures to Medicare and state that routinely waived copayments and deductibles are not being claimed as bad debts. Reports are due within 60 days of finding a deficiency.

The compliance program will begin with a Corporate Integrity Program Committee consisting of the associate general counsel, the director of the ethics program, and the executive vice president of medical affairs of the National Medical Enterprises Hospital Division. New employees must read the standards of conduct and sign the acknowledgment. All employees must sign an annual attestation that they have read the standards of conduct. All employees must receive one hour of training annually on the program.

National Medical Enterprises must also notify Health and Human Services and the Department of Justice if any directors or officers leave their position and immediately inform Health and Human Services and the Department of Justice of their successors upon appointment. Annual compliance reports must be filed noting all steps taken in the preceding 12-month period. National Medical Enterprises may not conduct business with anyone, with or without pay, who has been excluded from a government program. Persons employed by National Medical Enter-

prises who are charged with health care offenses do not have to be terminated unless convicted, but must be removed from any position (including any corporate officer position) dealing with a government program until resolution of the charges. Furthermore, for National Medical Enterprises to transfer or sell any of its business entities, it must notify Health and Human Services, list all provider numbers and anticipated dates of surrender, list all corrective actions undertaken by National Medical Enterprises within the past three years, and provide a compilation of nonprivileged reports, findings, or recommendations issued in the past three years. JCAHO reports must also be filed. National Medical Enterprises agreed to pay up to $500,000 annually for any Health and Human Services review prior to sale of a facility. If these funds are not used, they will be contributed to the U.S. Public Health Service.

Conclusion

The Medicare Trust Fund is quickly being depleted and the estimate by the Government Accounting Office is that $80,000,000,000 will be lost in health care fraud, waste and abuse. With returns nearing $80 recovered for each $1 spent in investigations, enforcement is only common sense.

Honestly review your practice. Are your employees credentialed or certified as coders, billers, etc? Do you send them for training and updates? It is about to become more important than ever to have qualified staffing. Stop and reflect on the fact that *you* are responsible and answerable for *all* actions taken by your staff. The feds have.

C. Sherwood Harris, CCAM
Mr. Harris is the executive director of *Keep InforM.D.*, (410-494-0694), a health care news and legislative services company that produces three newsletters for the physician community. *Keep InforM.D.* can also be found on the Internet at www.access.digex.net/~informed. ■

1997 CPT and ICD available through Med Chi Library

The Med Chi Library will have copies of both the 1997 CPT and the 1997 ICD available for purchase after November 20, 1996. The prices are:

- *CPT 1997* (main book only, soft bound)
  Med Chi member $41
  Nonmember $51

- ICD-9-CM 1997 (St. Anthony's Compact Code Book for Physician Payment, volumes 1 and 2 in one volume, soft bound)
  Med Chi member $33
  Nonmember $43

The library does not carry mini-books or any other versions of these items. All orders must be prepaid. The books can be picked up during business hours or mailed; the prices remain the same. Please make your check or money order payable to the Med Chi Library and mail it to Technical Services Dept., Library, Medical and Chirurgical Faculty, 1211 Cathedral St., Baltimore, Md. 21201. For further information, call Susan Harman or Ronald Harris in the library, 539-0872 or 1-800-492-1056.

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AIR FORCE

What Your Patients
MAY BE READING

- "Super Hormone Therapy: Can It Keep Men Young?"
  Newsweek, September 16, 1996

- "Steroids. Everything You Need to Know"
  Muscle & Fitness, October 1996

- "Fertility Clinic Nightmare. The Stolen Embryo Scandal"
  Glamour, September 1996

- "Fighting Addiction"
  Psychology Today, September 1996

- "Killer Drugs. The Scary Truth About X, Special K, and More"
  YM, October 1996

- "Kidney Stones Dissolved in Days"
  Alternative Medicine, Issue 13

- "Are the Treatment Options for PMS Leaving You Bloated, Irritable, and Crampy?"
  MS. July/August 1996

- "What You Need to Know About Cancer"
  Scientific American, September 1996

- "The New Medical Test Every Woman Should Ask For"
  Ladies' Home Journal, October 1996

- "Exclusive! Doctors' Choice: The Best Hospitals in America"
  American Health, September 1996

- "How the Mind Heals. Science vs. Spirit. What Works"
  New Age Journal, October 1996

- "Healthy Breasts. The Smarter Way to Check Yourself"
  Redbook, October 1996

- "Breast Health. A Lifesaving Guide"
  McCall's, October 1996

- "At Last! Good News About Breast Cancer"
  Ladies' Home Journal, October 1996

- "The New Diet Pill. Is It For You?"
  Reader's Digest, September 1996

- "Diet Pills: The Latest News from Around the World"
  Muscular, November 1996

- "Diet Disasters. Could You Be Eating All the Wrong Things?"
  Teen, October 1996

- "Prostate Cancer: Symptoms, Tests and Treatment"
  Ebony Man, September 1996

- "Plastic Surgery Horrors. What Can Go Wrong"
  Allure, September 1996

- "Sleep Solutions"
  Working Mother, September 1996

- "Obesity Epidemic. How You Can Defy the Odds"
  Shape, October 1996

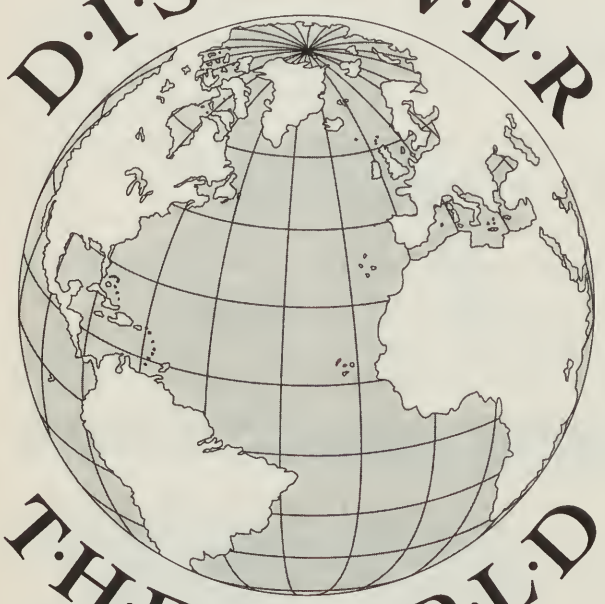
- "Age-Proof Your Heart"
  Men's Health, October 1996

- "Herbal Rx For the Immune System"
  Vegetarian Times, September 1996

- "Less Stress? More Bliss? Finally! The Truth About What Vitamins Can Do For You"
  New Woman, September 1996

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- Advertisements placed for the benefit of an HMO or a hospital are charged the nonmember rate.
- Advertisements for services (e.g., collection agencies) or for items not related to the practice of medicine (e.g., real estate sales) are limited to a maximum of three placements per calendar year.
- Spouses of deceased members are entitled to two complimentary insertions for the disposal of the deceased physician's practice or equipment.
- Box numbers are provided free of charge.
- Advertising copy and payment (checks should be made out to *Maryland Medical Journal*) should be sent seven weeks prior to the first of the month in which the advertisement is to appear.

Box replies, advertising copy, and prepayments should be sent to
Jane Short, *MMJ*, 1211 Cathedral St.,
Baltimore, MD 21201-5585

For more information, call Jane Short at 410-539-0872 or 1-800-492-1056.

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

Third hands-on flexible sigmoidoscopy course, 9 Cat 1 AMA credits. Fee: $595/physicians; $400/residents, fellows. — **Oct. 5**

Tenth annual core content of emergency medicine: a comprehensive review, Baltimore Marriott Inner Harbor, Baltimore, MD. Cat 1 AMA, ACEP, and AAFP credits available. Fee: $975/physicians; $775/residents, fellows. — **Oct. 7–13**

38th Annual Emil Novak memorial course: gynecology, gynecologic pathology, endocrinology, and high risk obstetrics, 49.5 Cat 1 AMA credits. 44 Cognates by ACOG plus 8 for optional microscopic sessions. Fee: $950/physicians; $750/residents, fellows, allied health professionals. — **Oct. 8–13**

Management of asthma & allergy in the workplace, Conference Center, Sheppard Pratt, Baltimore, MD. 11 Cat 1 AMA/AAFP credits. Fee: $300/physicians; $225/residents, fellows, allied health professionals. — **Oct. 17–18**

Advances in pediatric nutrition, Renaissance Harborplace Hotel, Baltimore, MD. Fee: $250/physicians; $200/residents. — **Oct. 28–30**

Men's health, Sheraton Inner Harbor Hotel, Baltimore, MD. 7.5 Cat 1 AMA credits. Fee: $150/physicians; $95/residents, fellows, allied health professionals. — **Nov. 11**

Advanced pediatric life support courses, 18.5 Cat 1 AMA credits. Fee: $595. — **Nov. 11–13, June 9–11, 1997**

Ophthalmology for the pediatrician and practitioner, Cat 1 AMA credits available. Fee: $130/physicians; $95/residents, fellows, allied health professionals. — **Nov. 15**

The first Johns Hopkins international symposium on gastrointestinal motility disorders, Harbor Court Hotel, Baltimore, MD. 14 Cat 1 AMA credits. — **Nov. 15–16**

Women's issues in HIV, Credits: TBA. Fee: $280/physicians; $210/ nurses, allied health; $140/residents, fellows — **Nov. 21–22**

Seventh annual neurology for the primary practitioner, Harbor Court Hotel, Baltimore, MD. Credits: TBA. Fee: $135/physicians; $85/residents, fellows, allied health professionals. — **Dec. 14**

14th Annual gastroenterology update: multidisciplinary approach—an exercise in interactive gastroenterology, Silvertree Hotel, Snowmass Village/Aspen, Colorado. 19 Cat 1 AMA credits. Fee: $495/physicians; $375/residents, fellows, allied health professionals. — **Feb. 9–14, 1997**

Management of auditory and vestibular disorders and vestibular practicum, Credit: TBA. Fee: $400/physicians; $300/residents, fellows, allied health professionals. Practicum: $75. — **Mar. 12–13, 1997**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

The Johns Hopkins Medical Institutions (continued)

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions by a different presenter on the first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

First annual sexual assault forensic examiner (S.A.F.E.) training course, Holiday Inn, BWI Airport, Linthicum, MD. 38 Cat 1 AMA credits. Fee: $400. Info: Sharon Stenhouse, 410-706-3956. **Oct. 16–20**

Endocrinology & metabolism update for the practicing physician 1996, Columbus Center, Baltimore, MD. 10 Cat 1 AMA credits. Fee: $225. Info: Connie Mach, 410-328-2513 **Oct. 25–26**

The comprehensive management of multiple sclerosis, Marriott Inner Harbor Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $100. Info: Kenneth Johnson, M.D., 410-328-6483. **Nov. 8**

Self-Directed CME Activities

Lipid management for coronary heart disease: a proven hypothesis (audio tape and test), 1 Cat 2 AMA credit. Expires 10/96. Info: TJN Communications, Inc. 609-497-9743.

Drug-drug interaction: focus on antidepressants (monograph w/response test), 2 Cat 1 AMA credits. Expires 10/96. Info: Clinical Communications, Inc. 203-629-2555.

Disease management of lipid disorders (audio tape and test), 1 Cat 2 AMA credit. Expires 6/97. Info: Sharon Stenhouse, 410-706-3956.

CD-ROM based interactive multimedia radiology teaching file for Mac or PC w/ single user licenses (SUL), site license (SL), or multisite license (MSL), 60 Cat 1 AMA credits. Expires 4/98. Fee: $149/SUL, $395/SL, $595/MSL. Info: Lorraine Smith, 410-528-8502.

Academic Rounds and Conferences

Each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous

Second annual conference for stroke survivors and caregivers: empowering the stroke survivor, Sheraton Baltimore North, Towson, MD. Sponsored by the American Heart Association, Maryland Affiliate. Fee: $20/person, $30/couple. Info: Lora Wong, 410-685-7074. **Oct. 5**

Miscellaneous (continued)

The management of asthma: the latest developments for the primary care physician, in Washington, DC. 5 Cat 1 AMA credits. Info: 1-800-338-4721. **Oct. 19**

New techniques and concepts in cardiology, sponsored by the American College of Cardiology, Hyatt Regency Capitol Hill, Washington, DC. 16 Cat 1 AMA credits. Info: 1-800-253-4636, ext. 695. **Oct. 24–26**

10th Annual interface: medicine & psychiatry, St. Joseph Medical Center, Towson, MD. 6 Cat 1 AMA credits. Fee: $60. Info: 410-337-3937. **Nov. 2**

15th Annual scientific meeting of the American Pain Society: pain and disease: causes, consequences, and solutions. Info: Eric J. Penne, 847-375-4830. **Nov. 14–17**

Surveillance of the vaccine-preventable diseases, a Public Health Training Network satellite video conference sponsored by the Centers for Disease Control and Prevention, the National Immunization Program, the Council of State and Territorial Epidemiologists, the National Association of County and City Health Officials, and the Public Health Training Network. The Center for Immunization, Maryland Department of Health and Mental Hygiene will host. CME credits available. Info: 410-767-6679. **Dec. 5**

Cutaneous melanoma '96: a clinical symposium for primary care practioners, sponsored by The Skin Cancer Foundation and Memorial Sloan-Kettering Cancer Center, Memorial Sloan-Kettering Cancer Center, New York, NY. 6.5 Cat 1 AMA credits. Info: Ludmilla Popoff, 212-639-6754 **Dec. 7**

PHYSICIAN'S RECOGNITION AWARD

During July 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

Leslie Abramowitz
Thomas E. Allen
David Alyono
Fritz Apollon
Janiine Babcock
Kenneth A. Ballou
Allan S. Berger
Cheryl Brown-Christopher
Jerome J. Coller
David J. Curtis
Laurence Desi
William D. Dockery
Alfonso C. Findley
Kenneth R. Gaarder
Harold M. Ginzberg
Charles W. Humphreys
Karen R. Kingry
Richard A. Kurnot
Richard C. Lang
Kam-Ken Leung
Eric B. Levey
Andrew M. London
Florentino N. Loya
Mukesh P. Luhar
Allan H. Macht
Eric P.T. Moolchan
Richard A. Nicklas
Helen A. Noble
Julio C. Novoa
David W. Roberts
Diana E. Torres-Burgos
Richard F. Tyson
Paulino O. Vasallo
Gino F. Zarbin

Miscellaneous (continued)

24th Annual Williamsburg conference on heart disease, sponsored by the American College of Cardiology, Williamsburg Lodge, Williamsburg, VA. 18.5 Cat 1 AMA credits. Info: 800-253-4636, ext. 695. **Dec. 8–11**

Reimbursement and managed care: essential reimbursement strategies in emergency medicine, sponsored by the American College of Emergency Physicians, Hyatt Regency, Baltimore, MD. 15 Cat 1 AMA credits, 15 Cat 1 ACEP credits. Info: 800-798-1822. **Apr. 3–4**

Getting control: effective procedure coding for emergency medicine, sponsored by the American College of Emergency Physicians, Hyatt Regency, Baltimore, MD. 15.5 Cat 1 AMA credits, 15.5 Cat 1 ACEP credits. Info: 800-798-1822. **Apr. 4–6**

Leadership conference, sponsored by the American College of Emergency Physicians, Stouffer Mayflower Hotel, Washington, DC. CME credits TBA. Info: 800-798-1822. **Apr. 6–7**

Legislative issues forum, sponsored by the American College of Emergency Physicians, Stouffer Mayflower Hotel, Washington, DC. CME credits TBA. Info: 800-798-1822. **Apr. 7–9**

Self-Directed CME Activities

Maryland physicians' campaign against family violence, module one: domestic violence, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10, 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Maryland physicians' campaign against family violence, module two: child maltreatment, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10, 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Continuously throughout the year

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 a.m. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, Zamoiski Auditorium, Thursdays, 9:00 - 10:00 a.m. Info: 410-578-5528.

Med Chi Bicentennial Celebrations

Med Chi has already begun planning celebration activities for its bicentennial in 1999. If you have any ideas or suggestions, please call Margaret Burri at 410-539-0872 or 1-800-492-1056.

Parris N. Glendening - Governor of Maryland

Martin P. Wasserman, M.D., J.D., Secretary
Department of Health & Mental Hygiene

DHMH Maryland Department of Health & Mental Hygiene

J. Mehsen Joseph, Ph.D., Director
Community Health Surveillance & Labs Admin

Ebenezer Israel, M.D., M.P.H., Director
Epidemiology & Disease Control Program

EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

201 West Preston Street, Baltimore, Maryland 21201 (410) 767-6700

October, 1996
Prevention and Control of Influenza and Pneumococcal Disease

In the United States, two measures are available that can reduce the impact of influenza: immunoprophylaxis with inactivated (killed-virus) vaccine and chemoprophylaxis or therapy with an influenza-specific antiviral drug (amantadine or rimantadine). Vaccination of persons at high risk each year before the influenza season is currently the most effective measure for reducing the impact of influenza.

The following pages contain a brief summary of the 1995-96 influenza season in Maryland and a copy of the 1996-97 influenza vaccine information statement (VIS) from the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. The VIS may be photocopied or additional copies can be obtained from the Maryland Department of Health and Mental Hygiene (DHMH) Center for Immunization at (410) 767-6679. The complete recommendations of the Advisory Committee on Immunization Practices (ACIP) for the prevention and control of influenza can be found in the May 3, 1996 issue of CDC's MMWR (Morbidity and Mortality Weekly Report) Volume 45, No. RR-5. That document can be downloaded directly from the CDC internet homepage (www.cdc.gov) or accessed through links to the CDC in our homepage (www.charm.net/~epi1).

Pneumococcal disease occurs most frequently during the winter months, both as a primary infection and secondary to influenza. The ACIP recommendations for the use of pneumococcal vaccine can be found in the MMWR, Volume 38, No. 5, p. 64-68, 1989.

Reported Influenza in Maryland 1995-96 Season

During the 1995-96 influenza season (October 1995 through May 1996) a total of 58 cases of laboratory confirmed influenza were reported to DHMH. Laboratory confirmed influenza was defined as: a) culture of influenza A or B virus, b) direct detection of influenza A viral antigen in a respiratory specimen by enzyme immunoabsorbant assay (EIA), or c) a four-fold rise in serum antibody titer. Fifty-six (97%) of the 58 cases were influenza A and only 2 (3%) were influenza B. Forty-four (76%) of the cases were confirmed by isolation of influenza virus; 42 were influenza A and 2 were influenza B. Among the 42 influenza A isolates, 8 were identified as H_1N_1 viruses without further characterization, and no characterization was attempted with the remaining 34 influenza A isolates. The remaining 14 cases of influenza A were confirmed only by direct detection of influenza A viral antigen by EIA.

Laboratory confirmed influenza was reported from Baltimore City and from 7 of Maryland's 23 counties (see table). Baltimore City accounted for 47 (46 influenza A, 1 influenza B, total 81%) of the State's cases, with most (43) of the reports coming from the city's two university hospital's. Somerset County had the highest county total with three influenza A reported. Among the 54 cases in persons with known ages, 47 (87%) were from children less than 10 years old, including 16 (30%) in children less than one year of age. The oldest reported case was 44 years old. This is in sharp contrast to most influenza seasons; the majority of reported cases are normally greater than 65 years of age. Thirty-four (59%) of the 58 cases were females. The peak weeks of influenza activity as evidenced by collection dates for positive specimens showed this to be one of the earliest influenza seasons in recent years. Cases were first reported in November (2 cases), peaked in December (46 cases), and declined rapidly in January (7 cases). Only three more cases were reported over the remainder of the season. The two cases of influenza B were the first and last reported cases of the season.

A laboratory confirmed outbreak of influenza was defined as an outbreak with one or more culture- or serologically-confirmed cases, or two or more cases that were confirmed only by EIA. An outbreak of respiratory illness that included both fever and cough, but without laboratory confirmation of influenza virus was termed "influenza-like illness" (ILI). During the 1995-96 influenza season, Maryland had 1 reported outbreak of laboratory confirmed influenza and 23 outbreaks of ILI. The confirmed influenza outbreak occurred in a state institution in April and was due to influenza B. It resulted in 3 outbreak-associated hospitalizations but no deaths. Etiologic agents were identified in only two of the ILI outbreaks: one each due to parainfluenza virus type I and parainfluenza virus type II. Outbreak activity during the 1995-96 season was low compared to the 1994-95 season when 9 confirmed influenza and 43 ILI outbreaks were reported.

There was a total of 63 reports of excess school absenteeism due to influenza-like illness during the influenza season. This is higher than the average of 47 reports over the previous four seasons.

Maryland Reported Influenza Cases and Outbreaks
1995-96 Influenza Season

Jurisdiction	**Cases** by Method of Confirmation					**Outbreaks**	
	Culture Influenza A	**Culture Influenza B**	**Antigen Detection Influenza A**	**Four-fold Titer Rise**	**Total Cases**	**Influenza A**	**Influenza B**
Anne Arundel			1		1		
Baltimore City	34	1	12		47		
Baltimore County	1				1		
Dorchester	1				1		
Montgomery	1		1		2		
Somerset	3				3		
Washington	1				1		
Wicomico	1	1			2		1
TOTAL	42	2	14	0	58		1

INFLUENZA VACCINE 1996-97

What you need to know before you or your child gets the vaccine



ABOUT THE DISEASE

Influenza (sometimes called the flu) is a serious disease. Here are a few important facts:

1. It spreads when influenza viruses pass from an infected person to the nose or throat of others.

2. Influenza can cause:
   - fever
   - chills
   - headache
   - cough
   - sore throat
   - muscle aches

3. It can lead to pneumonia and death.

4. Influenza can make people of any age ill. Although most people are ill for only a few days, some have a much more serious illness and may need to be hospitalized. Thousands of people die each year from influenza-related illnesses. Most deaths caused by influenza are in elderly people.

ABOUT THE VACCINE

Who should get influenza vaccine?

Group #1. People who are at risk for getting a serious case of influenza or a complication should get the vaccine. This includes:

- ☞ All people 65 years of age or older
- ☞ Residents of long term care facilities housing persons of any age with chronic medical conditions
- ☞ Any child or adult, including pregnant women, who has a serious long-term health problem with:
  - heart disease
  - lung disease
  - anemia
  - kidney disease
  - metabolic disease, such as diabetes
  - asthma

  AND in the past year had to:
  - see a doctor regularly, or
  - be admitted to a hospital

- ☞ People who are less able to fight infections because of:
  - a disease she/he was born with
  - infection with Human Immunodeficiency Virus (HIV), the virus that causes AIDS

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- treatment with drugs such as long-term steroids
- cancer treatment with x-rays or drugs

☞ Children and teenagers 6 months to 18 years of age on long-term aspirin treatment, who, if they catch influenza, could develop Reye's syndrome which causes coma, liver damage, and death.

Group #2. Anyone who has close contact with people who are at risk for getting a serious case of influenza. This includes:

☞ People—including children—who live with persons in high risk groups (Group #1 above)

☞ Health care workers (doctors, nurses, hospital and medical office staff)

☞ Personnel of nursing homes or chronic care facilities

☞ People who provide home-care to high-risk persons, such as visiting nurses and volunteers.

Group #3. In addition, an influenza vaccine may be given to:

☞ Persons who provide important community services

☞ People in schools and colleges, to prevent outbreaks

☞ Women who will be 6 or more months pregnant or who will have just delivered during the influenza season

☞ People going to the tropics any time of year or to countries south of the equator between April and September

☞ Anyone who wants to reduce their chance of catching influenza.

When should you get influenza vaccine?

The viruses that cause influenza change often, and protection declines within a year after vaccination. So people who need the vaccine should get it every year.

The vaccine begins to protect you after 1 to 2 weeks and protection may last up to one year. Influenza is most common in the U.S. from December to April, so it is best to get the vaccine in the fall. People 9 years and older need one shot each influenza season, while children less than 9 years old may need a second shot after one month.

Will the vaccine keep you from getting influenza this year?

Since influenza viruses change frequently, they may not always be covered by the vaccine. Also, other viruses cause diseases that seem like influenza, and the influenza vaccine does not protect against these other viral infections.

The vaccine contains viruses that are the same or similar to those thought to be most likely to come to the U.S. this year. Their names are:

A/Texas/36/91 (H1N1)
A/Nanchang/933/95 (H3N2)
B/Harbin/07/94

All the viruses in the vaccine are killed so you cannot get influenza from the vaccine.

Can other vaccines be given at the same visit?

Yes, but in a different limb. These include:

- Pneumococcal vaccine
- All childhood vaccines

What are the risks from influenza vaccine?

As with any medicine, there are very small risks that serious problems, even death, could occur after taking the vaccine. The risks from the vaccine are **much smaller** than the risks from the disease if people stopped using vaccine. Almost all people who get influenza vaccine have no serious problems from it.

Children less than 13 years old should be given only split virus vaccine to reduce chances of side effects. Split-virus vaccines can also be used by adults.

If mild or moderate problems occur, they usually start soon after the vaccination and usually last up to 1-2 days. These may include:

- soreness, redness, or swelling where the shot was given
- fever
- aches

Unlike the 1976 swine influenza vaccine, recent influenza vaccines have not been clearly linked to a paralytic illness called Guillain-Barré Syndrome (GBS), from which people usually recover. In 1990-91 and 1993-94 there may have been a small chance that getting GBS was linked to influenza vaccine in people 18 to 64 years old, but not in people older than 64. The chance of GBS after influenza vaccine is far less than the chance of getting severe influenza that could be prevented by the vaccine.

Tell your doctor or nurse if you:

- have a serious allergy to eggs
- ever had a serious allergic reaction or other problem after getting influenza vaccine
- were ever paralyzed by Guillain-Barré Syndrome
- are pregnant or think you might be pregnant
- now have a moderate or severe illness.

What to do if there is a serious reaction

→ Call a doctor or get the person to a doctor right away.

→ Write down what happened and the date and time it happened.

→ Ask your doctor, nurse, or health department to file a Vaccine Adverse Event Report form or call: (800) 822-7967 (toll-free)

How to learn more

If you want to learn more, ask your doctor or nurse. She/he can give you the vaccine package insert or suggest other sources of information.

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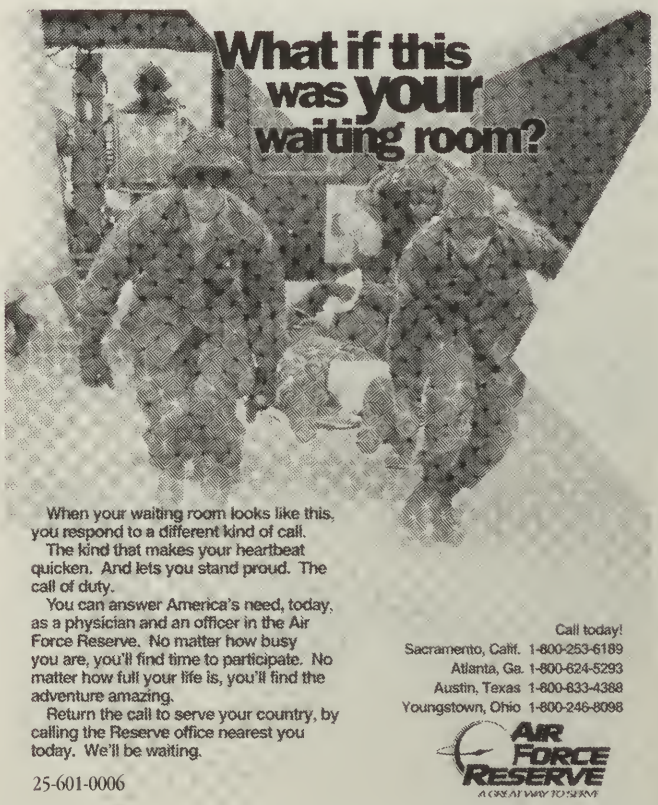
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Enuresis risoria (giggle incontinence) is laughter-precipitated, involuntary, complete emptying of the bladder in children and adults who are otherwise continent and have no genitourinary tract infection or structural anomalies. Although various behavioral and pharmacologic treatments have been tried, no specific treatment is known. Minnesota researchers, however, report that **methylphenidate (Ritalin) produced complete cessation of giggle incontinence in 7 patients (2 males and 5 females aged 6 to 19) followed for 1 to 5 years.** Particularly intriguing is their hypothesis that giggle incontinence is a centrally mediated, probably hereditary disorder that may share a common pathophysiologic basis with narcolepsy and cataplexy (*J Urol* 1996;156:656–658).

To TEE or not to TEE? In patients presenting with stroke and transient ischemic attack, transesophageal echocardiography (TEE) is superior to transthoracic echocardiography (TTE) in identifying possible cardiac sources of cerebral embolism. Authors of a chart review study, however, conclude that **routine use of TEE is not cost effective as a diagnostic procedure in patients presenting with cerebral ischemic events** (*Arch Intern Med* 1996;156:1719–1723). Although TEE identified a potential cardiovascular source of embolism in approximately one third of study patients with stroke or transient ischemic attack, the authors note that there is no proof that the cardiac finding caused the event. They recommend using TEE as a screening test only in patients with clinical evidence of heart disease but without atrial fibrillation and in patients whose findings on TTE are suspicious for a significant abnormality (e.g., a vegetation or larger atrial septal defect).

Treating a hairy problem. Turkish investigators report that **low-dose flutamide (Eulexin),** an antiandrogen FDA-approved for the treatment of metastatic prostatic carcinoma, **appears to be effective in the treatment of female hirsutism.** Their nonrandomized, prospective clinical trial included 41 moderately to severely hirsute women aged 16 to 39 who had neither hepatic nor renal disease. Flutamide 250 mg once daily for 6 months significantly improved the degree of hirsutism in all patients. The treatment was associated with no alterations in serum hormone levels and there were no significant alterations in total cholesterol, triglyceride, liver function, renal function, and blood count parameters. Estrogens were not coadministered during the study (*Fertil Steril* 1996;66:220–222).

It has been reported that antibiotics are frequently prescribed for acute sinus infections, but whether such treatment is effective has heretofore been poorly documented. Norwegian researchers, however, report that **penicillin V and amoxicillin are significantly more effective than placebo in treating acute sinusitis in adults** (*BMJ* 1996;313:325–329). The mean duration of the sinusitis episode was 9 days with amoxicillin, 11 days with penicillin V, and 17 days with placebo. In addition, the reduction in clinical severity score was 60% greater in subjects given antibiotics than in those given placebo.

Surgeons at the University of California, Davis-East Bay, report that during a 3-year period ending December 1995, they **identified 45 patients with necrotizing soft-tissue infections. Of the 28 cases that occurred during the last year of the study, parenteral drug abuse accounted for 21 cases (75%).** Bacteriologic findings included anaerobes, gram-positive cocci, gram-negative rods, and skin flora. Clostridial species were common in the patients with histories of parenteral drug abuse. The investigators urge a high index of suspicion when examining drug abusers for infectious soft-tissue processes and remind physicians that **injecting drug users who use black tar heroin are at increased risk for wound botulism** (*Arch Surg* 1996;131:846–854).

Cite SEER

Cite Seer was disturbed to learn that **at the state level, many health organizations use lobbyists who also lobby for the tobacco industry** (*Am J Public Health* 1996;86:1137–1142). According to data obtained in 1994, almost half of all tobacco lobbyists also worked for at least one health-related organization (state medical association, physician association, hospital, etc.). **Maryland was one of 10 states with 10 or more health organizations that employed such lobbyists.**

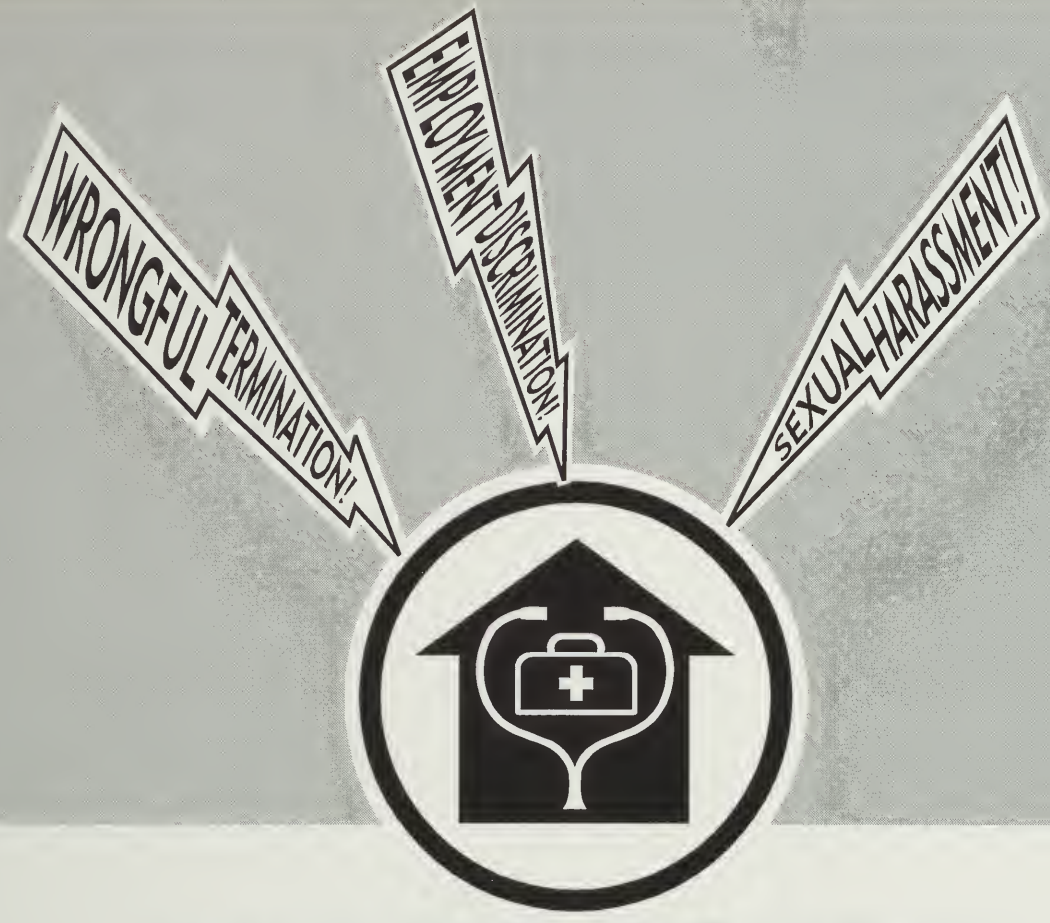
It has been reasonably well established that benzodiazepine use increases the risk of falling, particularly among the elderly. A prospective, controlled cohort study, however, has provided the first data indicating that **the highest risk of serious injury due to falls may occur during the first 15 days after the patient fills a benzodiazepine prescription** (*Age Aging* 1996;25:273–278). Also, in contrast to other studies suggesting that shorter-acting benzodiazepines (e.g., triazolam, lorazepam) are associated with less risk of falling than longer-acting compounds, the investigators found that **the hypnotics flurazepam (Dalmane) and triazolam (Halcion) showed the highest increase in risk**, with adjusted odds ratios of 3.4 and 2.7, respectively. For oxazepam (Serax), lorazepam (Ativan), and diazepam (Valium), the adjusted odds ratios were 2.2, 2.0, and 1.8 (all were statistically significant).

Intentional acquisition of HIV, a behavior previously reported only in the lay press, has now been documented in the medical literature (*Ann Intern Med* 1996;125:257–264). Seattle investigators studying the clinical and epidemiologic presentation of primary HIV infection report that **3 of their 46 study patients** (6%), who **said they were depressed and felt isolated from their peer group**, deliberately had unprotected sexual contact with persons known to be HIV infected.

Elderly patients may be at increased risk for hypermagnesemia, particularly if they use over-the-counter products containing magnesium (e.g., antacids, laxatives, and analgesics). Although abnormal renal function is a well-known risk factor for hypermagnesemia, the authors of a recent case report and literature review (*Arch Fam Med* 1996;4:718–723) stress that other, **nonrenal risk factors include gastrointestinal tract disease and concomitant use of medications with anticholinergic and narcotic effects.** Hypermagnesemia can produce serious—but reversible—neurologic, gastrointestinal, dermatologic, cardiac, and/or respiratory symptoms.

Children who have recently been receiving an antibiotic may be at increased risk for acquiring a penicillin-resistant pneumococcal infection. Results of a retrospective analysis of 53 cases of invasive *Streptococcus pneumoniae* infection in patients younger than 18 years of age showed that the combination of prior antibiotic treatment and a low absolute neutrophil count (less than 15 000) correctly predicted 63% of resistant strains. The authors conclude that **febrile children with a low absolute neutrophil count in whom pneumococcal infection is considered a possibility also should be considered at risk for a penicillin-resistant strain** (*Arch Pediatr Adolesc Med* 1996;150:809–814).

Bee stingers—just yank them out. Entomologists from the University of California at Riverside and Pennsylvania State University report that, **to reduce envenomization, a bee stinger should be removed as quickly as possible.** Conventional advice, which is to scrape off the stinger rather than pinch it off, is likely to increase the dose of venom received for the simple reason that scraping usually takes longer, thus allowing the stinger to continue pumping venom. The investigators, who used themselves as study subjects, state that **pinching the stinger and pulling it has no affect on the muscles that pump venom into the wound** (*Lancet* 1996;348:301–302).



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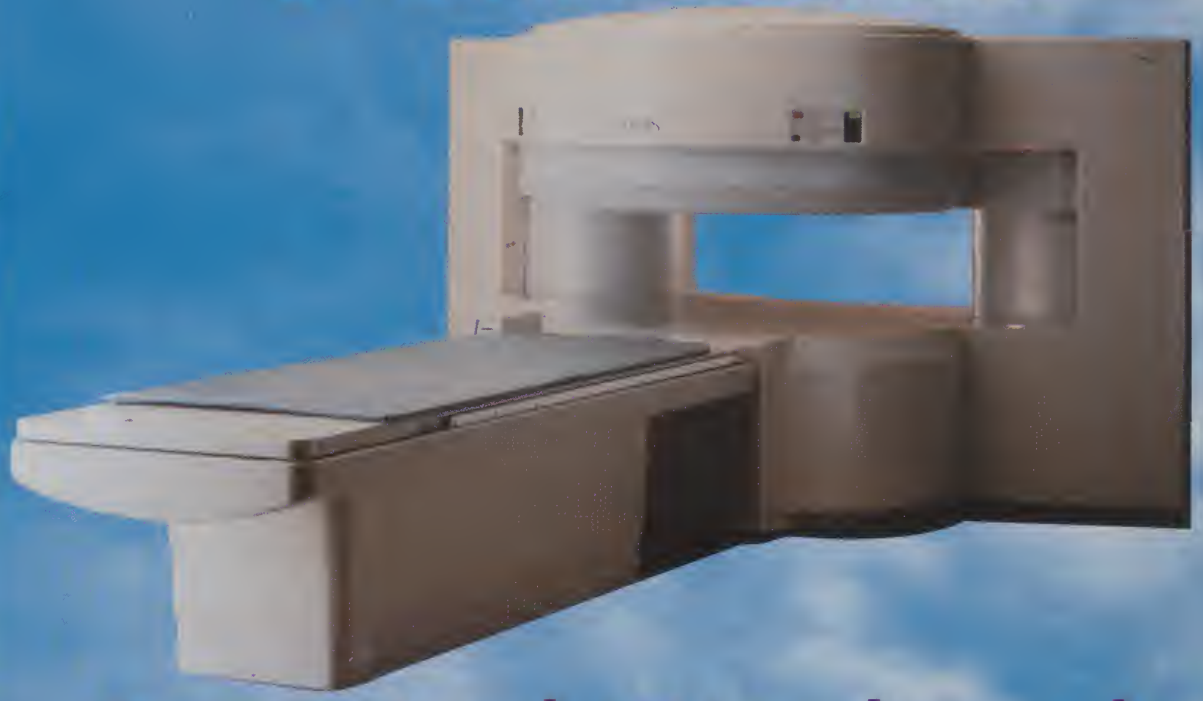
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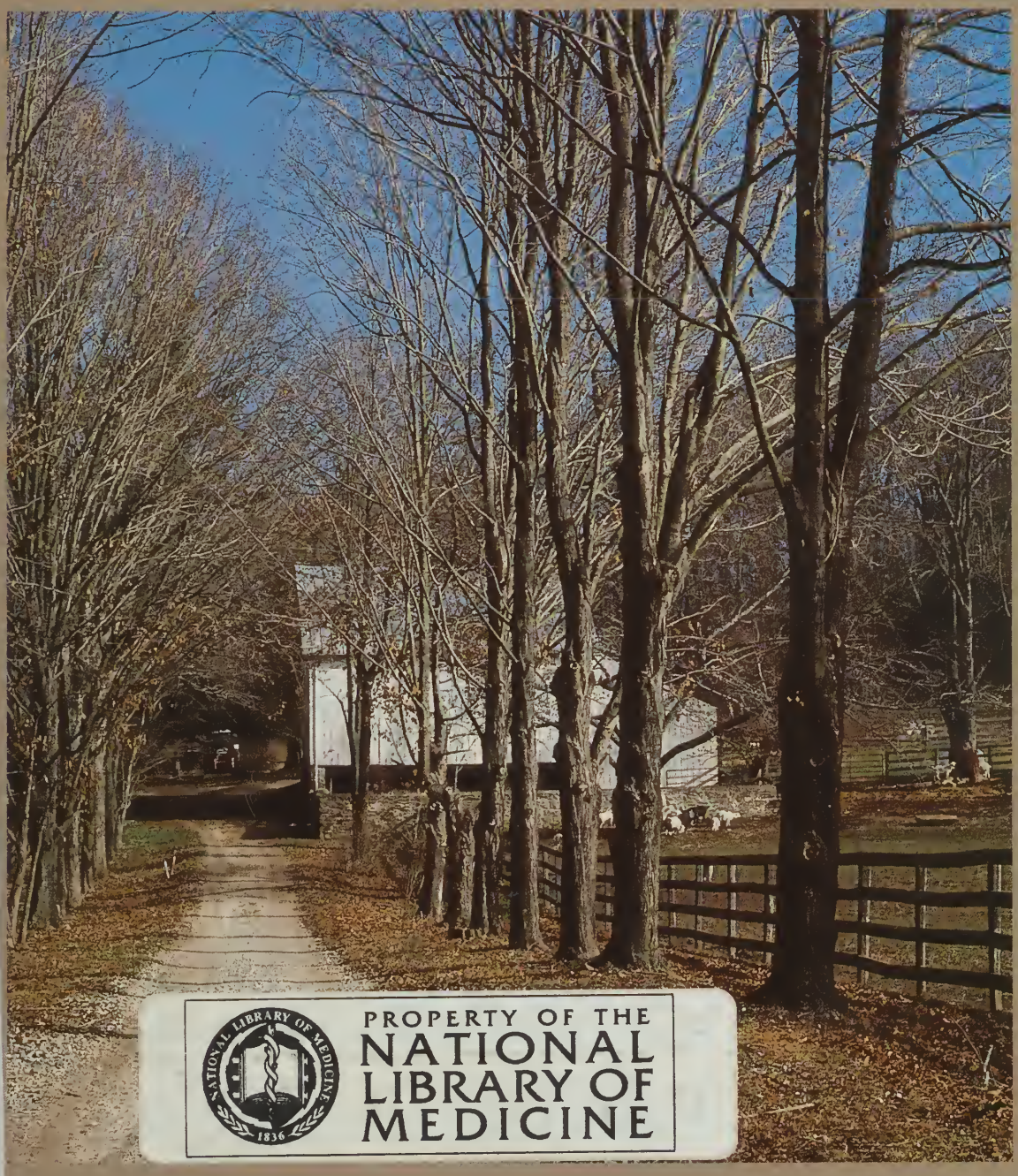
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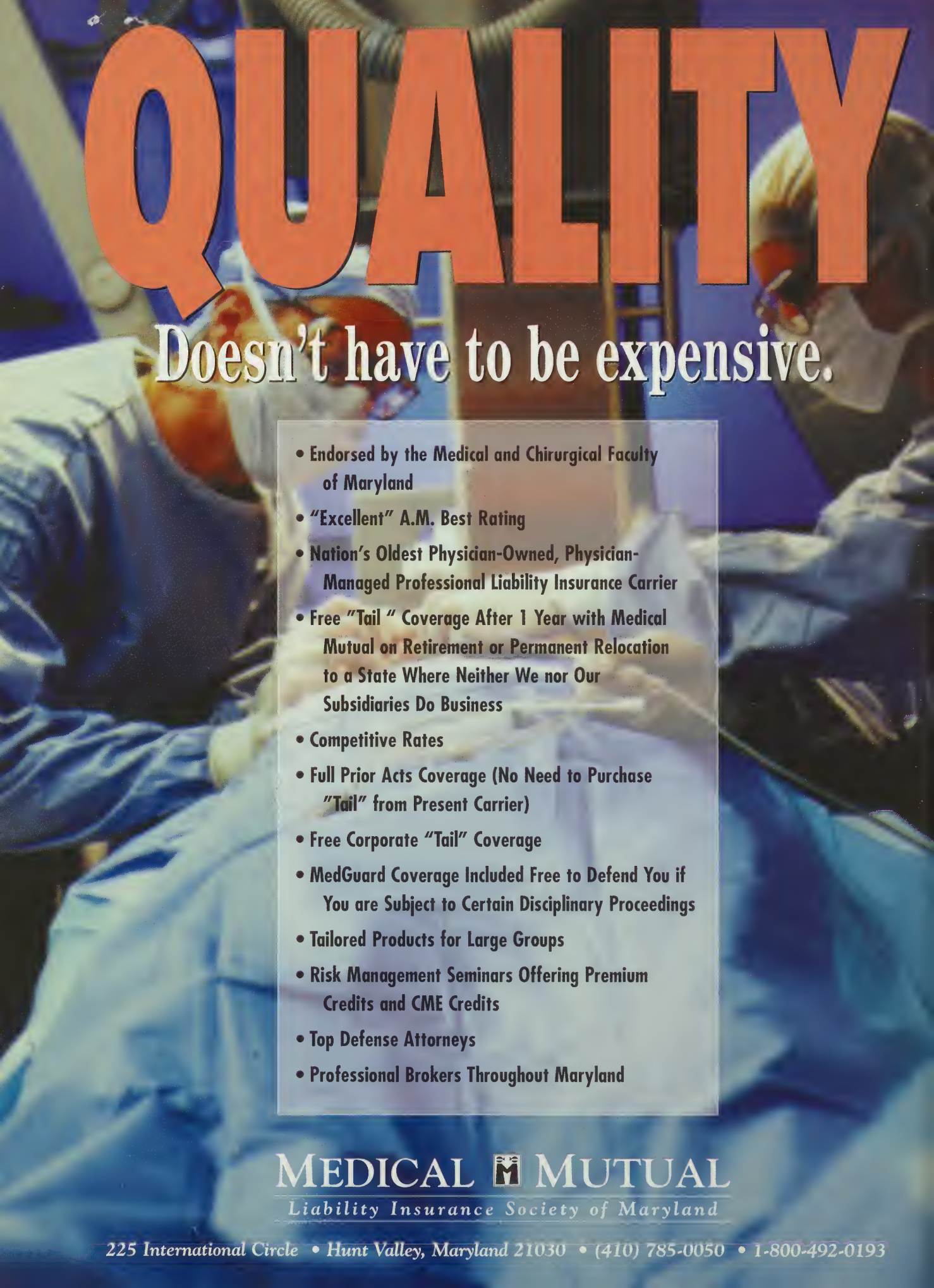
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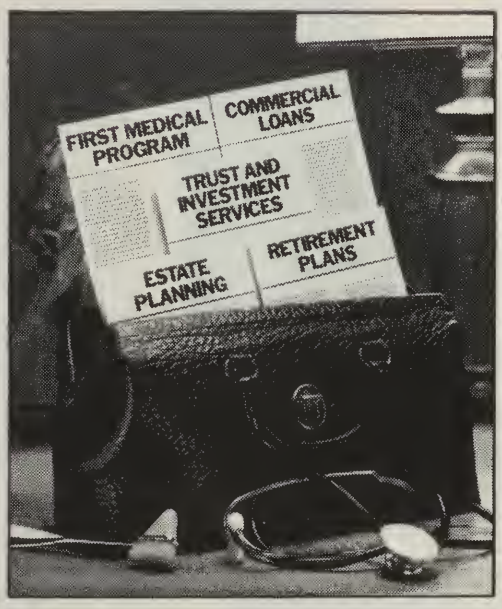


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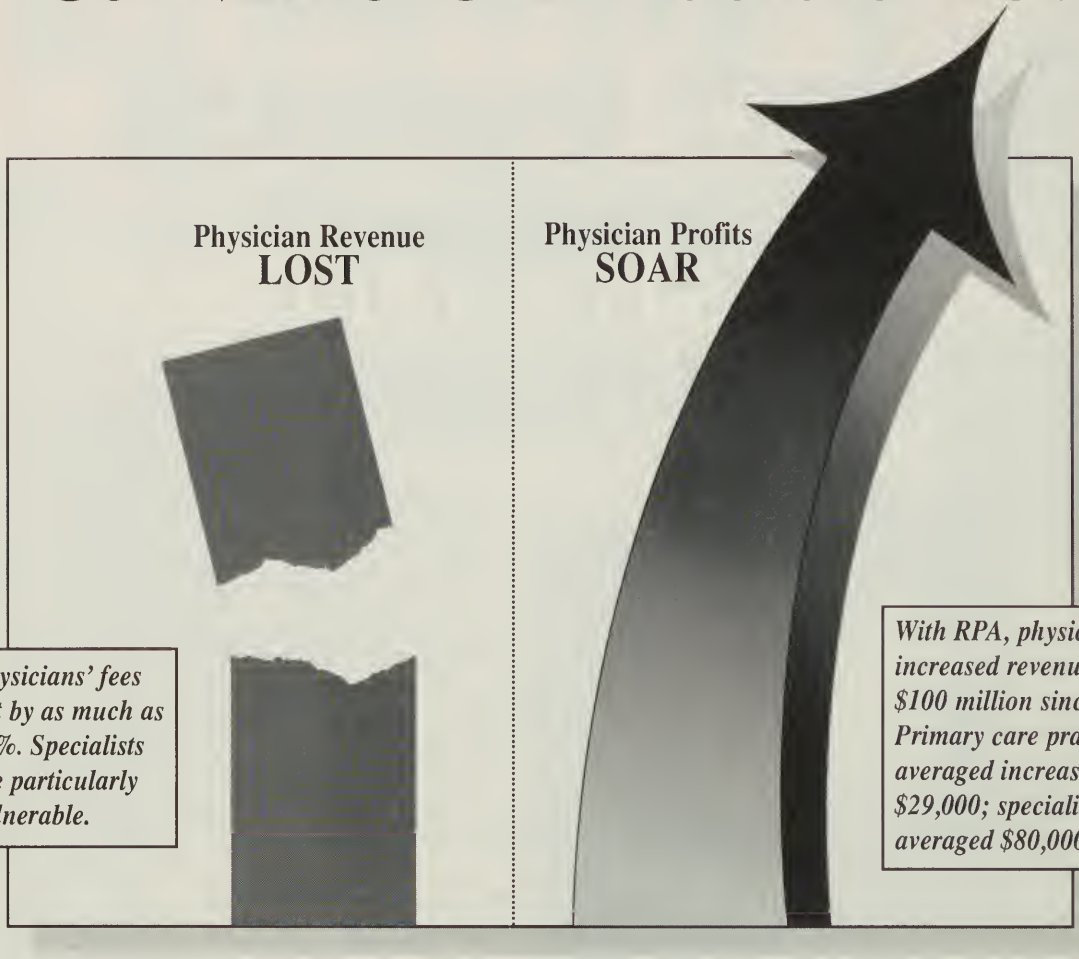
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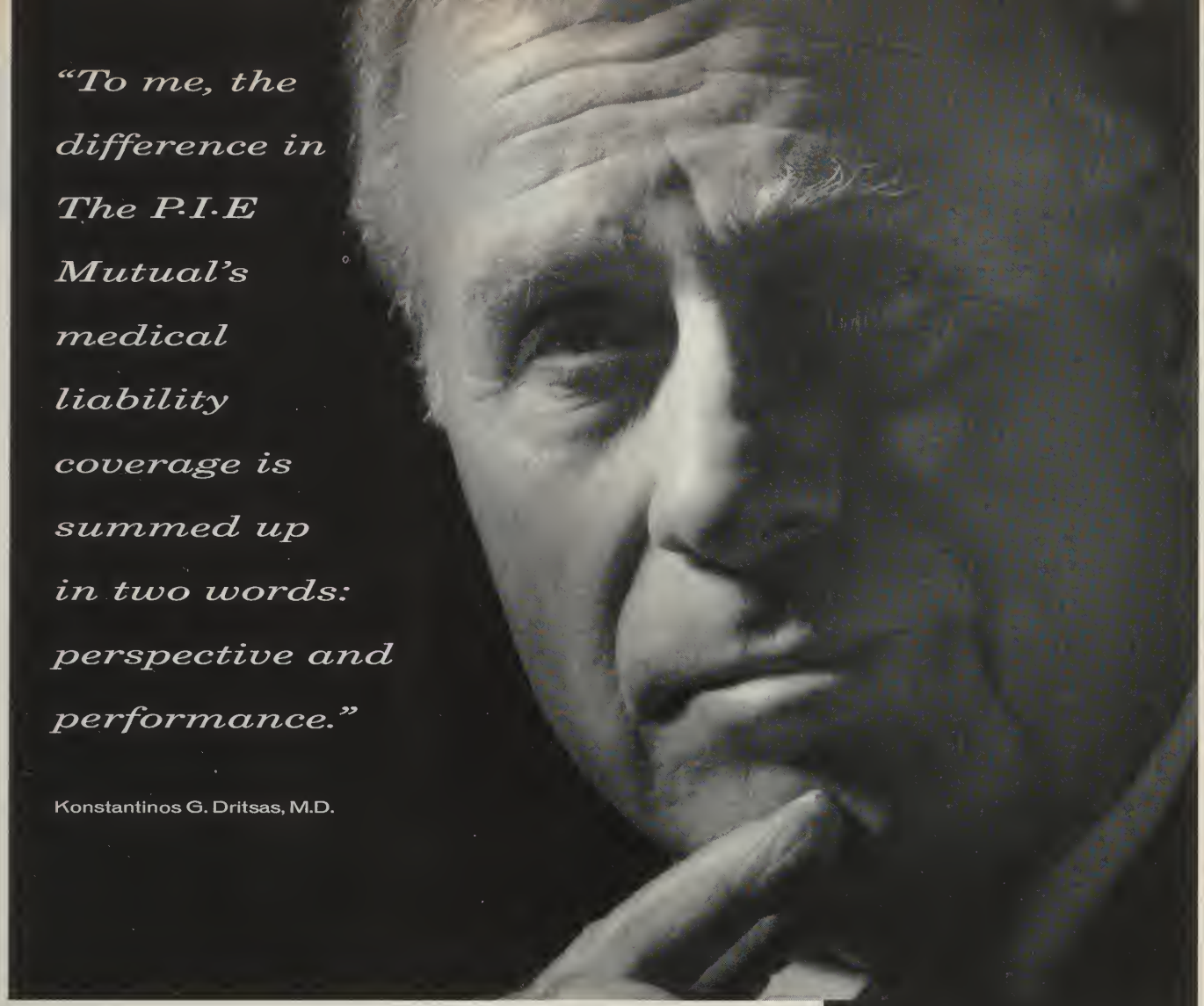
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NEWS
MED CHI
MEDICAL JOURNAL
MARYLAND
November 1996

President's Letter

Dear Colleagues,

I am pleased to report several important changes at Med Chi in response to issues raised by the membership. These positive changes reflect our promise to improve the scope and value of the quality services already offered by our organization as we move into the next millenium.

First, members have received correspondence reporting senior staff changes. The board of trustees has appointed Michael Preston as acting executive director to replace Angelo Troisi, who left Med Chi in September to pursue other opportunities. Mr. Preston, formerly Med Chi's general counsel, will serve in this role on an interim basis while the board conducts a national search for a permanent replacement. (Mr. Preston will be a candidate.)

Second, Med Chi is pursuing a project that would implement a credentialing verification organization and office evaluation service to streamline the burden of physicians' interaction with managed care. This effort, which I described when I was installed, offers the potential for preserving the central role of the professional association in the qualitative assessment of physicians, rather than relinquishing this critical task to the government, or to the insurance industry and their proxies. We expect the project, now in the planning stages, to be ready for implementation during the first quarter of 1997. Separately, the AMA is proceeding with a related project to implement a uniform national system of credentialing, quality assessment, and physician accreditation of which our effort will be a component.

Third, Med Chi's ability to understand and address economic concerns affecting medical practice will be enhanced by closer relations with the Maryland Chapter of the Medical Group Management Association (MGMA). We have begun to invite each other's representatives to participate in key committee activity, and an effort is underway to explore combined programs that will afford a greater range of information and services to our members, perhaps even including simultaneous scheduling of our annual or semiannual meetings. Meanwhile, members will soon receive a schedule of Med Chi's *Practice Management Workshop* series for medical office staff. This popular series includes programs on proper coding and other important, time-sensitive issues affecting physician reimbursement. It was offered previously and has been resumed due to its popularity.

Finally, Med Chi's annual and semiannual meetings are under review with an eye toward maximizing the value of the CME offerings and improving the efficiency of the time required of physicians to attend both the educational programs and the House of Delegates meetings.

I look forward to using this newsletter to share with you more information about these and other Med Chi initiatives, and to receiving your comments and suggestions on maximizing the value of your Med Chi membership.

Sincerely,
Alex Azar, M.D.
PRESIDENT ◆

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Executive Director's Letter

Dear Med Chi Member,

Your input is needed on an important policy issue that will affect all Maryland physicians and other health care professionals: the payment system. I have been writing about this and other regulatory issues in the *MMJ* over the past few months, but it's time to consider more generally what the payment system is and whether it is, or is not, a good thing for practitioners.

Appearing on page 895 is a payment system primer, based on a paper that I prepared in conjunction with the Maryland Health Care Provider Coalition's payment system workgroup. A related "FAX Back" survey appears on page 918.

The real question is whether Med Chi physicians are for or against preserving the existing law under which Maryland's Health Care Access & Cost Commission (HCACC) has the power to impose a uniform system of reimbursement for health insurers and practitioners. The issue is complex, but it is fair to state that the payment system offers practitioners both potential benefits and risks.

The potential benefits are: (1) introduction of a uniform schedule among payers may make it easier to understand, negotiate, and seek legislative or regulatory redress about payers' reimbursement for a given CPT code or set of codes; and (2) a payment system could potentially be a vehicle for using the power of the government to assure some threshold or minimum level of practitioner reimbursement by having HCACC set not only the allowable upper limit, or "ceiling" for reimbursement, but also the lower limit, or "floor," below which reimbursement could not fall. An amendment to the existing law would be required to clarify HCACC's authority to set a floor for practitioner reimbursement, and would be vigorously contested.

The potential risks are those that attend any government price manipulation: market distortions, political turf battles, inefficiency, and in particular, the risk that over time the floor on rates would become the ceiling. The payment system law currently authorizes HCACC to set upper limits or ceilings on practitioner reimbursement. An amendment to clarify HCACC's authority to set a floor would place the commission even more clearly in the business of regulating fees.

An alternative scenario would be one in which the law is amended to eliminate all price control features of the payment system, offering the first of the potential benefits described above. Practitioners would be required to set and publish one conversion factor, or price, for their services, but the amount could be set at whatever level they choose.

Your comments on this matter would be of great value to Med Chi's Board of Trustees and Legislative Committee. Please take the time to respond using the "FAX Back" survey, or by calling Med Chi at 1-800-492-1056, ext. 415. For more information, please feel free to contact me personally.

Sincerely,

Michael Preston
ACTING EXECUTIVE DIRECTOR ◆

Bulletin Board Briefs

Med Chi presents three-part series, Medical Care of Women in the Era of HIV Disease

Med Chi, in cooperation with the Local and Family Health Administration, AIDS Administration, Maryland Department of Health and Mental Hygiene (DHMH), Monumental Medical Association, March of Dimes Foundation (Central Maryland Chapter), Maryland Perinatal Association, Family Planning Council, and the Maryland AIDS Professional Education Center, will be presenting a three-part series addressing *Medical Care of Women in the Era of HIV Disease*. This series will be held on December 4, 1996, January 15, 1997, and February 5, 1997 from 7:00 to 9:00 a.m. at the Med Chi building. Each session is worth 2 CME credits.

Expert faculty will present cutting-edge information via lectures and small group discussions. You may attend each session independently or enroll in all three. Session I will focus on the neonatal period and will be valuable to obstetricians, labor and delivery nurses, neonatal providers, and hospital clinical pharmacists. Sessions II and III will focus on preconceptual and premenopausal health care including pregnancy options and management of HIV disease in women, and will be useful to all providers of women's health care. If you are interested in finding out more about the series, or need a registration form, please contact Med Chi's Carol Doctrow at 410-539-0872 or 800-492-1056, ext. 336.

1997 CPT and ICD available through Med Chi Library

The Med Chi Library will have copies of both the 1997 CPT and the 1997 ICD available for purchase after November 20, 1996. The prices are:

- CPT 1997 (main book only, soft bound)
  - Med Chi member $41
  - Nonmember $51
- ICD-9-CM 1997 (*St. Anthony's Compact Code Book for Physician Payment*, volumes 1 & 2 in one volume, soft bound)
  - Med Chi member $33
  - Nonmember $43

The library does not carry mini-books or any other version of these items. All orders must be prepaid. The items can be picked up during business hours or mailed; prices remain the same. Please make check or money order payable to the Med Chi Library and mail to: Technical Services Dept., Library, Medical and Chirurgical Faculty, 1211 Cathedral St., Baltimore, MD 21201. For further information, call Susan Harman or Ronald Harris at 410-539-0872 or 800-492-1056.

AMA's Campaign Against Family Violence schedules conference in Baltimore

The AMA, in an effort to help localities develop coordinated community responses to family violence, has scheduled the third in this series of conferences in Baltimore. The conference, *Family Violence: Building a Coordinated Community Response,* will be hosted by the University of Maryland on March 12-14, 1997 for participants from Maryland, Delaware, Ohio, Pennsylvania, Virginia, West Virginia, and the District of Columbia. There will be informational sessions on a wide range of team-building topics, including legislation, fund-raising, media, and program evaluation. Participants will also be able to learn about common pitfalls and successful programs within their region.

In the months ahead the Baltimore community will be assembling a multi-disciplinary team which will work together to create a comprehensive, coordinated anti-violence program. Teams will consist of members from the fields of health, law, law enforcement, criminal justice, social services, media, victims' services, child and elderly welfare, education, business, ministry, and others.

New AMA program needs volunteers

At the AMA's House of Delegates meeting this summer the issue of physician-assisted suicide was revisited. The AMA reiterated its unequivocal opposition to physicians assisting their patients in committing suicide: "the added option of allowing physicians to intentionally cause the death of patients is a line that should not be crossed."

Nevertheless, incidents of physician-assisted suicide continue and action is needed to better meet the needs of patients who request active physician participation in assisted suicide. To provide these patients with compassionate care and alternatives to assisted suicide, the AMA is developing mechanisms to assure that any patient is provided access to a caring and competent physician who will not view death as a medically acceptable treatment modality.

The AMA is planning to establish a central number for patients to locate a physician who will be able to meet patients' end-of-life care needs, or provide consultation and treatment for those contemplating suicide as an alternative to seeking care.

If you are interested in volunteering to provide this type of help, please call Med Chi's Joan Mannion at 800-492-1056, ext. 319.

GBMC and DHMH present conference on Down Syndrome

Greater Baltimore Medical Center's (GBMC) Community and Family Health Center and the State of Maryland Department of Health and Mental Hygiene (DHMH) Developmental Disabilities Administration will be presenting *Medical Care of the Adult Patient with Down Syndrome* on Thursday, November 14, 1996. The conference will take place from 8:00 a.m. to 3:30 p.m. at GBMC's Physician Pavilion East Conference Center.

This program is designed for family practitioners, pediatricians, internal medicine practitioners, psychiatrists, radiologists, OB/GYNs, and other health care professionals to help educate them with the special health needs for the adult with Down Syndrome. For registration information, call 410-828-3670.

AMPAC campaign training dates set for 1997

The American Medical Political Action Committee (AMPAC) will present two campaign training seminars in 1997. AMPAC's *Campaign School* is scheduled for February 19-23, 1997, and *Medicine's Candidate: A Prescription for Political Success* is set for November 14-16, 1997. Both programs will be held in Washington, D.C.

The AMPAC *Campaign School*, redesigned in 1995, is a five-day training program designed to take students through every aspect of campaign management, from making the candidate's announcement and developing the campaign message, to targeting and tracking voters. *Medicine's Candidate: A Prescription for Political Success* is AMPAC's candidate training seminar. The three-day program covers essential elements of a winning campaign, but more importantly, teaches physicians, spouses, and members of organized medicine the real story of being a candidate. For more information on one of these programs, call the AMA Division of Political Education at 202-789-7464.

NRHA publishes resources directory for rural health, mental health, and substance abuse

The National Rural Health Association (NRHA) has just published the Rural Health, Mental Health, and Substance Abuse Resources Directory for 1996. The directory is designed to facilitate contact among organizations, agencies, and individuals working toward the goal of improving the delivery of health care and mental health services.

The new edition includes the following categories: federal, national, and state organizations; offices of rural health; hospital associations; rural health research centers; area health education centers; and many other resources. Listings are organized by state within each category and are indexed by state and type of organization. To order this publication, send advance payment of $10 and the name of the publication to: Publications Dept., NRHA, One West Armour Blvd., Suite 301, Kansas City, MO 64111.

Johns Hopkins and Howard County General Hospital create county's first cardiac cath center

Johns Hopkins Medicine and Howard County General Hospital opened the Central Maryland Heart Center, Inc., an outpatient cardiac catheterization center, on the campus of Howard County General Hospital on September 26, 1996. The center, a joint venture of Johns Hopkins Medicine and Howard County General Hospital, offers state-of-the-art facilities for testing patients who may be suffering from heart disease using a procedure called cardiac catheterization. It will be the first such facility in Howard County. There are 11 board certified/eligible cardiologists on staff at the center, eight from Howard County General Hospital and three from The Johns Hopkins Hospital.

AMA requests return of nationwide survey

The AMA and Hewitt Associates mailed out the Physicians' Health Plan Assessment Survey on October 4, 1996, to 100,000 physicians in 22 markets across the country. This survey evaluates the managed care plans in which physicians participate. If you were one of the randomly selected physicians to receive the survey, it is essential that you fill it out and return it by November 1, 1996. If you miss the deadline, return it anyway.

We hope to share the results with you in the near future. The AMA will use the results to identify areas of concern and to advocate those health plans that address the concerns. Hewitt Associates will provide the survey results to more than 300 "Fortune 500" companies that want to know what you think of health plans and will use the information when evaluating health plans and making purchasing decisions. If you have any questions, please call Helen Jameson, J.D., at 312-464-4271.

President's Eastern and Western Regional Meetings set for November

The President's Eastern Regional Meeting will be held on Tuesday, November 19, 1996, at the Cambridge Yacht Club in Cambridge, Maryland. Registration will begin at 6:00 p.m. and dinner will be served at 6:30 p.m. If you are interested in attending contact Med Chi's Education and Information Department at 800-492-1056.

The Washington County Medical Society (WCMS) will host Med Chi President's 1996 Western Regional Conference on Thursday, November 21, at the Four Points Hotel (formerly the Sheraton Inn) in Hagerstown. Cocktails will be at 5:45 p.m. and dinner will begin at 6:30 p.m. To register, please call Joan Mannion at Med Chi at 800-492-1056 or fax to 410-547-0915. WCMS members may call Cynthia Oates at 301-223-5523, or mail reservations to WCMS, P.O. Box 172, Williamsport, MD 21795.

Med Chi Insurance Agency and Asset Strategy Consultants present seminar on fiduciary responsibility

Med Chi Insurance Agency in conjunction with Asset Strategy Consultants, a Baltimore-based investment management consultant firm, will be presenting "The Optimization of Investment Performance and Fiduciary Responsibility" on Thursday, November 14, 1996 from 5:30 to 8:00 p.m. The program will be held at the Med Chi building and is designed to provide detailed instruction for investors on the procedurally prudent process employed by institutional investors in the management of investment portfolios. For individuals who fulfill the role as a "fiduciary" for retirement plans, non-profit endowments or other forms of trusts, the course provides a thorough background in the compliance regulations mandated under ERISA and other legal standards. The basic course is recommended for 2 hours of continuing education credit by the Accountancy Board of Maryland (Approval Code: E1095). Participants will be exposed to the latest developments following investment management challenges including:

- Evaluation of Money Managers, Stockbrokers & Mutual Funds
- Performance Monitoring of Portfolios and Money Managers, Mutual Funds & Stockbrokers
- Investment Policy
- Establishing Portfolio Goals & Objectives
- Asset Allocation & the Capital Markets
- Portfolio Diversification
- Risk Management
- Control of Portfolio Expenses
- Control of Fiduciary Liability

This seminar will be of great value to any physician or chief financial officer, whether they are concerned with personal assets, retirement plans or trusts. Asset Strategy Consultants will provide a complimentary "Portfolio Analysis and Audit" to all seminar participants.

The Med Chi Board of Trustees has retained Asset Strategy Consultants to provide services to the Medical and Chirurgical Faculty Endowment Fund. They will establish written goals, objectives and operating procedures, provide money manager searches, performance monitoring, and coverage of fiduciary liability.

For information and enrollment details on the November 14, 1996, program, please contact Asset Strategy Consultants at 410-528-8282 or the Med Chi Insurance Agency at 410-539-6642.

Liver Transplantation for Alcoholic Liver Disease *conference set for December 6-7*

The Division of Digestive Diseases and Nutrition of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the National Institute on Alcohol Abuse

and Alcoholism (NIAAA) of the National Institutes of Health (NIH) will be holding a conference, *Liver Transplantation for Alcoholic Liver Disease*, on December 6-7, 1996 at the Bethesda Marriott Hotel and the Natcher Conference Center on the NIH Campus in Bethesda, Maryland.

The conference is a two-day international workshop which aims to review the current status and rates of success of liver transplantation for alcoholic liver disease, to make recommendations for selection and management of alcoholic patients undergoing liver transplantation, and to suggest direction for future clinical and basic research. If you have questions regarding the conference or would like to register, please contact Conference Manager Jere Suter of ComputerCraft Corporation at 301-493-9674. ◆

Smoke Free Maryland wins 800k Robert Wood Johnson Foundation grant



(L-R) JosephAdams, M.D., Secretary, SmokeFree MD Med Chi Representative; J. Joseph Curran, Jr. Esq., Attorney General, State of Maryland; Percy Wootton, AMA President Elect; Martin P. Wasserman, MD, JD, Secretary, DHMH

The Robert Wood Johnson (RWJ) Foundation has awarded a grant of $823,476 to the Medical and Chirurgical Faculty of Maryland, on behalf of the Smoke Free Maryland Coalition, in 48-month continued support of its participation in the Foundation's SmokeLessStates Program. SmokeLessStates is a national program of the RWJ Foundation and the American Medical Association that supports statewide efforts to reduce tobacco use, particularly among children and youth, through the development and implementation of comprehensive tobacco use prevention and control strategies.

The Maryland SmokeLessStates grant will expand and strengthen the Smoke Free Maryland Coalition's efforts to reduce tobacco use in Maryland. Grant activities will focus on building grassroots support for clean indoor air and reduced youth access to tobacco throughout the state, mobilizing Maryland physicians and health professionals as tobacco control advocates, and supporting state and local tobacco control coalitions in their outreach and program efforts. These efforts will supplement and complement ongoing activities in Maryland to reduce tobacco use.

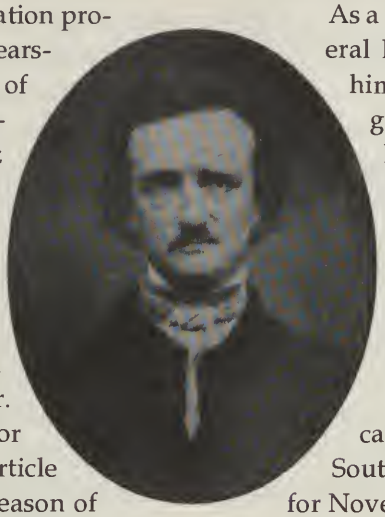
Smoke Free Maryland Coalition's reception of the SmokeLess States grant was announced at an October 2nd press conference held at Med Chi. AMA President-elect Percy Wootton, M.D., Maryland Attorney General J. Joseph Curran, Jr., and Secretary of Health Martin P. Wasserman, M.D, J.D., among others, were present for the announcement.

MMJ article garners a flurry of interest

In the September *Maryland Medical Journal* (*MMJ*), R. Michael Benitez, M.D. presented a case study postulating that Edgar Allen Poe's demise was a result of rabies rather than alcohol or opium as once thought. The new revelation regarding his death was a hot news item that generated a lot of interest by the media and others.

The case report came to fruition about 1 ½ years ago as a result of a regular weekly meeting of physicians at the University of Maryland. Dr. Benitez was given the unknown case report by Dr. Phillip Mackowiak, vice chairman of the department of medicine at UM Medical Center, purportedly as a recent case.

Dr. Benitez immediately found the case to be a bit unusual because of its lack of lab data. "I thought some of the information provided seemed old, but not 147-years-old," Dr. Benitez commented of the case report. After completing his research, Dr. Benitez presented the case report to a group at the University of Maryland that was followed by an actor reading Poe's poem "The Black Cat."



MMJ representatives heard the presentation and asked Dr. Benitez to submit the article for publication. The *MMJ* ran the article to coincide with the opening season of the newly-acquired Baltimore Ravens football team.

Dr. Benitez was very surprised by the amount of interest the story received. "I thought it would spur a lot of local interest, but I had no idea it would engender so much national, and even international, interest," he explained.

As a result of the media coverage, several literary societies have contacted him, including a Hispanic literary group that wanted him to read "The Raven" in Spanish. He also received a letter from a New Jersey psychic who claimed Poe's spirit had contacted her to say he was beaten to death. He has even had a literary representative contact him about a possible book deal.

Dr. Benitez will present the case report again at a meeting of the Southern Medical Association, slated for November 20-24, 1996 in Baltimore.

(*Editor's note*: The Poe case report was covered by several national and local media outlets including *USA Today*, the *Baltimore Sun*, the *New York Times*, *Washington Times*, the *Washington Post*, and *San Francisco Chronicle*, the BBC, WJZ, WQSR, and National Public Radio.)

Maryland Regulatory News

HCACC: A payment system primer — uniform reimbursement system includes potential for physician fee regulation

Michael Preston and Victor Glorioso

Maryland's proposed uniform health care practitioner payment system has real importance for physicians. While it's not yet implemented, it is the creation of existing law and has the potential not only to affect the terms under which practitioners will do business with insurers and other payers; it also has the potential, for good or ill, to be used as a system to regulate the permissible levels of physician fees. Accordingly, this article is offered as a primer on the payment system, including a synopsis of its history and its current status.

Existing Maryland law. In 1993, the Maryland legislature adopted a major health care reform measure known as H.B. 1359, creating a uniform payment system applicable to all health care providers and insurers within the reach of Maryland law. The legislation also created the Maryland Health Care Access & Cost Commission (HCACC), whose charge includes the development and implementation of the payment system along the lines described in the statute.

Although the law does not specify the use of the Medicare Resource Based Relative Value Scale (RBRVS) for the payment system, it recites factors to be considered in its development which fairly mimic the key elements of the Medicare scheme. Importantly, the law contemplates that, unlike Medicare, the levels of the conversion factors that determine the levels of reimburse-

ment are not to be set by HCACC, but are to be set by the various practitioners and payers individually in the free market. (An elaboration of the basic RBRVS concepts appears below.)

Thus, in the true indemnity insurance setting, the physician would charge the amount consistent with whatever conversion factor he or she sets; the insurance company would pay the amount consistent with its conversion factor; and the patient would be liable for the difference. In the negotiated fee setting, the conversion factors would come into play only when the parties negotiate their contract.

However, the law does grant HCACC the power to set "annual adjustment goals," or budgets, for entire sectors of the physician (and other health care practitioner) community, and grants HCACC the power to impose caps upon any sector that exceeds its budget. Obviously, therefore, the law includes potentially draconian powers that HCACC may exercise to control the upper end of physician reimbursement. The law does not include clear authority for HCACC to intervene in the market and set an allowable range of conversion factors at both the high and low end on an ongoing basis.

HCACC has obtained a series of recommendations from the Boston-based Center for Health Economics Research (CHER), regarding implementation of the payment system. Among CHER's recommendations is one that HCACC should adopt an allowable range of conversion factors, meaning that, if implemented, the Commission would be in the business of regulating on an ongoing basis the amounts that physicians can charge for their services. Absent this recommendation, the Commission could only regulate the fees of those groups whose total annual reimbursement is found to be in excess of the HCACC budget.

Amendment of the law would be required either to eliminate the payment system altogether, to eliminate its current price control features while preserving its requirements for uniformity among payers, or to authorize HCACC to set minimum levels of physician reimbursement.

Basic elements of payment system. All health care payers, including insurers and government payers, use some form of payment scale to determine the amounts paid to practitioners for a given procedure. Historically, reimbursement was based upon the practitioner's usual and customary rate (UCR). After the Medicare system adopted the RBRVS in 1992, private payers gradually started adopting this scale, including the Maryland BlueCross/BlueShield system. However, many carriers continue to use the UCR system.

The RBRVS contains two basic components: Relative value units (RVUs), and conversion factors. (An additional factor to allow adjustment for geographic differences commonly known as "gypsies" is not considered in this article.) The basic concept of the RBRVS is to assign values to each CPT code which reflect the resources necessary to accomplish the task represented by that code. In particular, the RVU incorporates three elements: the value of the physician's work, the amount of overhead expenses attendant to accomplishing that work, and the malpractice liability expense associated with it. Hence, the table of RVUs for each CPT code forms the basic structure for the RBRVS.

A conversion factor is a dollar amount which, when multiplied by the RVU of a procedure, gives the total amount that the payer will pay for the procedure, regardless of the amount the physician actually bills. Medicare currently allows three conversion factors to determine payments: a factor for surgical services of $40.7986, a factor for primary care services in the amount of $35.4173, and a factor of $34.6293 for other non-surgical services. It can be expected that, eventually, Medicare will move to a single conversion factor that will be applied for all types of services, so that the variation in reimbursement among different specialties reflects only the RVUs, and not differences in conversion factors.

HCACC's proposed use of the RBRVS for Maryland's payment system would require all carriers operating in the state to use the RBRVS for reimbursement of practitioners. This would introduce a uniform system of reimbursement,

but it is not intended to introduce uniformity in the level of reimbursement across specialties or among different carriers, because all carriers and all practitioners would be free to set the level of their own conversion factors. In effect, negotiations between practitioners and carriers over levels of reimbursement would be boiled down to one issue: the conversion factor.

Controversy regarding HCACC's use of RBRVS focuses mainly upon current proposals that would limit conversion factors in various ways. First, it is proposed that each carrier, and each practitioner, will be required to set only one conversion factor, which would be published. Therefore, all practitioners would know the level of reimbursement offered by the various carriers, and likewise all carriers would know the published prices of all practitioners. Meanwhile, the consumer of health care services (who is not in an HMO) can use these published conversion factors to determine the cost of any given procedure, including the amount of out-of-pocket liability he will have for the procedure, over and above the insurance carrier's level of reimbursement (the balance-billed amount).

Second, great controversy has emerged concerning a recommendation to HCACC, under which all carriers' and practitioners' conversion factors would be limited to a range between $35 and $65. This recommendation would, in effect, set a "floor" and "ceiling" for practitioner reimbursement. Whereas HCACC's clear mandate under the existing statute is to intervene and regulate conversion factors only at the high end under circumstances where a particular specialty is felt to be an "outlier," the introduction of a floor and ceiling would put HCACC in the business of regulating, on an ongoing basis, "reasonable reimbursement" for practitioners.

Examples applying the RBRVS system may be helpful. If a physician performs CPT procedure 16000, "initial treatment, first degree burn, when no more than local treatment is required," the RVU is 1.27. If the physician ordinarily would charge $95.25 for this procedure, his billing conversion factor is $75.00 ($95.25 divided by 1.27). However, Medicare employs mandated conversion factors, which may have no relationship to the physician's actual fee. In this instance, multiplying the RVU by the Medicare surgical conversion factor of $40.7986, $51.81 would be the total allowable reimbursement for this procedure. Medicare would then pay 80% of this allowable amount, or $41.44, and the physician would balance bill the patient for $10.37. The physician would then write-off the difference between his actual charge and the allowable amount for Medicare, or $43.44.

If a physician performs the above procedure on a patient who is insured by a company with whom the physician has no contractual arrangement, the patient would be liable for the difference between the physician's actual charge (his billing conversion factor times the RVU), and the amount reimbursed by the carrier (the payment conversion factor offered by the carrier times the RVU). If the carrier's payment conversion factor happened to be the same as the Medicare conversion factor, then the patient in the example would be liable for an amount of $53.81 ($43.34 plus $10.47).

Importantly, the RBRVS applies only in the true indemnity market, and has no application for the reimbursement between carrier and practitioner that is based upon a contractually negotiated rate, such as capitation. However, when the practitioner negotiates with the carrier over reimbursement in a fee-for-service arrangement, the carrier's mandated use of the RBRVS would rationalize the negotiation process, so that the practitioner and carrier would focus only on the conversion factor and both would have a clear understanding of the amount that would be paid for a given procedure.

Survey Request. Please take a moment to express your comments on the issue by using the "FAX Back" survey on the payment system on page 918. ◆

Mr. Preston is Acting Executive Director of Med Chi. Mr. Glorioso is President of Professional Management, Inc. ◆

Pitfalls for physicians lie in differences between state, federal self-referral law

Barry F. Rosen and Robin J. Siegel

Both the State of Maryland and the federal government have enacted legislation prohibiting "self-referrals," that is a referral by a physician to another health care entity in which the referring physician has a financial interest. Both laws were enacted in response to concerns about over-utilization of services.

While the Maryland and federal laws are similar, they are not identical. In many instances, the laws have significant differences that result in some arrangements being permissible under one law, while violating the other.

Each statute, taken individually, is confusing — trying to comply with both is mind boggling. In fact, a review of the differences leads to one conclusion — Maryland's law should be harmonized with federal law, commonly known as Stark II, because clarity will enhance compliance.

A. Key differences between Maryland law and Stark II

1. ***Different effective dates.*** Maryland's law, enacted in 1993, has staggered effective dates, extending as far out as March 15, 1997, depending on what type of arrangement is regulated. Stark II, which extended previous federal anti-referral prohibitions from clinical laboratory services to a wide variety of other health care services, took effect on January 1, 1995.

2. ***Referrals prohibited.*** Under both laws, physicians are generally prohibited from referring patients to health care entities in which, or with which, the practitioner (or an immediate family member) has an ownership interest or a compensation relationship, subject to certain exemptions.

   The Maryland law is considerably more burdensome than the federal law since it prohibits the referral of patients for *all* health care services, while Stark II only restricts the referral of patients for "designated" health services.

   The "designated" health care services subject to Stark II only include the following: (i) clinical laboratory services; (ii) physical therapy services; (iii) occupational therapy services; (iv) radiology services, including MRI, CAT scan, and ultrasound services; (v) radiation therapy services and supplies; (vi) durable medical equipment and supplies; (vii) parenteral and enteral nutrients, equipments, and supplies; (viii) prosthetics, orthotics, and prosthetic devices and supplies; (ix) home health services; (x) patient prescription drugs; and (xi) inpatient and outpatient hospital services.

3. ***All payors.*** The Maryland law applies to all payors, while Stark II only prohibits self-referrals in the context of the Medicare and Medicaid programs.

4. ***All providers.*** The Maryland law applies to all health care practitioners, which includes any person who is licensed, certified, or otherwise authorized to provide health care services in the ordinary course of business or practice of a profession; Stark II applies only to physicians.

5. ***Group practice exemption.*** The Maryland law does not apply when a health care practitioner refers a patient to another health care practitioner in the same group practice as the referring health care practitioner.

   "Group practice" includes arrangements in which two or more health care practitioners are legally organized (i) in which each member of the group provides a full range of services through the joint use of shared office space, facilities, equipment, and per-

sonnel; (ii) substantially all of the services of the members are provided through and billed on behalf of the group with the amounts collected being treated as receipts of the group; and (iii) the overhead expenses of and the income from the practice are distributed in accordance with methods previously determined on an annual basis by the members.

It is important to note that the Maryland law specifically sets forth this broad group practice exemption, while Stark II only exempts "physician services" and "in-office ancillary services" provided in a "group practice."

Further, although Stark II's definition of "group practice" is similar to Maryland's, Stark II's definition is more restrictive. In particular, Stark II provides that, except in limited circumstances, no member of the group may directly or indirectly receive compensation based on the volume or value of referrals, and members of the group must personally conduct no less than seventy-five percent of the group's "physician-patient encounters."

6. ***Supervisory exemption.*** Maryland self-referral restrictions do not apply to a health care practitioner with a "beneficial interest" in a health care entity who refers a patient to that entity for health care services or tests, if the services or tests are personally performed by or under the direct supervision of the referring health care practitioner.

   Nor does the Maryland law apply when a health care practitioner refers a patient for in-office ancillary services or tests when they are personally performed by (i) the referring practitioner; (ii) a health care practitioner in the same group practice as the health care practitioner; or (iii) an individual who is employed and personally supervised by the referring practitioner or a practitioner in the same group.

   Stark II does *not* contain a separate "supervisory" exemption, but it does provide for a similar, yet more restrictive in-office ancillary exemption.

7. ***Health maintenance organization exemption.*** Both laws contain exemptions relating to health maintenance organizations; however, the Maryland exemption is restricted to health care practitioners treating members of HMOs *only if* the practitioner does not have a "beneficial interest" in the entity. The federal exemption is broader in that it does not specify that the health care practitioner may not have such a beneficial interest and applies to a larger range of prepaid health plans.

8. ***Equipment rental exemption.*** Stark II contains exemptions relating to certain compensation arrangements, one of which exempts arrangements for the rental or leasing of equipment that meet specified requirements; no such exemption is contained in the Maryland law.

9. ***Practice purchase exemption.*** Maryland's law does not contain a practice purchase exemption, as does the federal law.

B. Conclusion

Though similar, Maryland and federal self-referral laws have substantial differences, causing confusion for even the most astute health care practitioner. In this context, one is reminded of the adage "less is more." If the two statutes were written consistently, then it would be more likely that both would be followed.

Accordingly, the Maryland General Assembly should now amend the Maryland self-referral law to make it compatible with the federal law. Moreover, the timing could not be better, since Maryland's law first goes into effect on March 15, 1997 for arrangements in existence prior to January 1, 1993.

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MIA: Minimum hospice benefits rules issued

Lynn S. Slawson

In August, the Maryland Insurance Administration (MIA) published proposed regulations that establish minimum hospice care benefits that must be included in new hospice policies sold in Maryland by insurers, nonprofit health services plans, and HMOs after January 1, 1997. Policies sold before this date must also be revised to include these minimum benefits unless the policy is noncancellable or has a guaranteed renewal. Minimum benefits include 30 days inpatient care for those policies covering inpatient care, medication/medical supplies to maintain the comfort and manage the pain of the patient, 14 days of respite care per year, and family bereavement counseling for 6 months or 15 visits, whichever occurs first. Public comment on the proposed regulations is expected.

Also in August, the MIA published a proposed Uniform Consultation Referral Form to be used if an insurer, nonprofit health service plan, HMO, or dental organization requires its covered individuals to have a written referral to receive services. If the form is not substantially revised following public comment, the referral form is scheduled for use on or after October 1, 1996. ◆

HSCRC: Alternative rate amnesty period set

Lynn S. Slawson

Health Services Cost Review Commission (HSCRC) has declared an amnesty period until November 7, 1996 to give hospitals or entities related to hospitals, a final opportunity to comply with the HSCRC's regulatory requirements pertaining to alternative rate setting. Current HSCRC regulations require hospitals or hospital-related entities to notify the HSCRC in advance of finalizing any fixed price contracts with payors or any at-risk arrangements that include hospital services. The regulations also require compliance with certain reporting requirements. Following the amnesty period, the HSCRC will employ all appropriate penalties to assure strict compliance with the HSCRC's alterative rate setting regulations. ◆

HRPC: Priorities set for acute and ambulatory care

Lynn S. Slawson

Health Resources Planning Commission (HRPC) recently outlined its planning priorities for acute and ambulatory care. Some of the HRPC's projects are: (a) creation of a capacity management system for acute inpatient services, including development of a management plan that addresses both licensed and operational inventory, (b) revisions to the merger/consolidation rules and development of hospital closure criteria, (c) development of a population-based health plan, (d) creation of new health planning regions, and (e) identification of high-priority regions.

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Lesser known facts about Maryland Medicaid MCOs

Henry E. Schwartz

Most Maryland health care providers know that Maryland is in the process of requiring its Medicaid recipients to enroll in managed care organizations (MCOs). However, the following are many lesser known details of the plan:

1. ***Benefits.*** The benefits provided to Maryland Medicaid recipients by an MCO must be equivalent to Medicaid Program benefit levels provided as of January 1, 1996. An MCO will be allowed to offer additional benefits, but its capitation rate will not be adjusted to compensate the MCO for offering such services. An MCO must also provide case management, home visiting, alcohol and drug abuse treatment, and primary mental health services.

2. ***Historic providers.*** Each "historic" Medicaid provider that meets quality standards has the right to continue to serve Medicaid recipients as a subcontractor of *at least one* MCO. Historic providers are defined as qualified community health centers; academic medical centers; hospital or physician MAC providers; local health departments; hospice programs; pharmacies; and other providers as designated by the Department of Health and Mental Hygiene (DHMH).

3. ***Administrative requirements.*** MCOs must have enrollee and provider grievance procedures, a consumer advisory committee, and a quality assurance program. A business plan must be provided to the Maryland Insurance Administration before enrolling any recipients, and an annual report will be required.

4. ***Solvency.*** MCOs must be actuarially sound. If the MCO does not have an HMO license, it must have an initial surplus of between $1,250,000 and $1,500,000. Interestingly, DHMH may choose to fund a surplus itself for an MCO comprised of current Medicaid providers who cannot meet the initial surplus requirement. In addition, the MCO must maintain an operating surplus which is the greater of $750,000 or 5 percent of the prior calendar year's subscription charges (not to exceed $3 million).

5. ***Single-purpose entity.*** An MCO must agree to enroll *only* Medicaid recipients.

6. ***Marketing.*** MCOs will not be allowed to direct-market to potential Medicaid enrollees. DHMH will assign enrollees to MCOs operating in their areas.

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Federal Health Law Roundup

States may not be able to ban assisted suicide

Robin J. Siegel

The Ninth Circuit, the federal appellate court with jurisdiction for several western states, recently overturned a Washington State statute that banned physician-assisted suicide. The court, in *Compassion in Dying v. Washington*, determined that, as applied to competent, terminally-ill adults who wish to terminate their lives by obtaining medication prescribed by their physicians, the statute violates the United States Constitution.

The Washington statute in question provided that "a person is guilty of promoting a suicide when he knowingly causes or aids another person to attempt suicide."

A. Balancing test

The court applied a balancing test under which it weighed an individual's liberty interests against the relevant state interests to determine whether the statute was constitutional. The court cited the long line of U.S. Supreme Court cases that protect personal choices, and place these decisions beyond the authority of the states.

Significantly, the court found that the state's interest in preventing terminally ill individuals from hastening their deaths of comparatively little weight. Further, the court determined that frustrating the wishes of such individuals was cruel.

The court noted that terminally-ill persons are otherwise entitled to expedite their death, and that their physicians may assist in the process.

For example, terminally-ill patients are permitted to reject medical treatment, and many states allow such patients to order their physicians to discontinue traditional medical treatment, as well as the artificial provision of life-sustaining food and water. In addition, physicians are generally permitted to administer death-inducing medication, as long as they can point to an accompanying pain-relieving purpose.

The court also rejected the assertion that assisted suicide requires physicians to play too active a role in causing deaths that would not otherwise result from a patient's underlying disease. In fact, the court noted that there is a strong argument that a decision by a terminally-ill patient to hasten, by medical means, a death that is already in process should not even be classified as suicide.

B. Horrific consequences

Finally, the appellate court refused to uphold the statute as a means to prevent undue influences over an individual's decision to end his or her life. The court found that the risk of undue influence was real — either by persons with an economic stake in the patient's death, or because of a patient's desire not to be a burden. Nevertheless, the court believed that physicians would not assist a terminally-ill patient to hasten death as long as there was any reasonable chance of enabling the patient to live under tolerable conditions.

Accordingly, the court concluded that legalizing assisted suicide would not lead to the horrific consequences suggested by the statute's supporters. In fact, the court made suggestions as to how Washington State could protect against errors and abuse in the implementation of laws or regulations governing physician-assisted suicide.

For instance, the court proposed that a state could require:

1. witnesses to ensure voluntariness;
2. reasonable, though short, waiting periods to prevent rash decisions;
3. second medical opinions to confirm a patient's terminal status and to confirm that the patient has been receiving proper medical care; and
4. psychological examinations to ensure that the patient is not suffering from momentary or treatable depression.

The court also noted that such safeguards could be adopted by medical associations and other health care organizations, even without legislative action.

The law in this area is still evolving. Nevertheless, if other courts follow the Ninth Circuit's lead, then this decision may prove to be the first of many in which states will be prohibited from banning physician-assisted suicide.

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Editor's Note: *In September the United States Supreme Court agreed to review the Ninth Circuit decision, along with a similar decision from the Second Circuit. A ruling is expected next summer.*

Did You Know?

Henry E. Schwartz

Practice profiles. Did you know that, if a Maryland HMO uses a practice profile in its evaluation of a provider's status on the HMO's provider panel, the HMO must now disclose certain aspects of the processes to providers at contract commencement and renewal, and annually upon request? Further, a Maryland HMO may no longer terminate a provider's contract or employment on the basis of a practice profile, without first informing the provider of the findings of the profile and the provider-specific data underlying those findings. A practice profile is an analysis of services rendered or utilized by a provider in regard to an HMO's enrollees.

New Maryland fraud unit. Did you know that the Maryland Attorney General's Office contains a new Health Care Fraud Unit focusing primarily on private insurance fraud? The unit is being funded by a grant from the U.S. Department of Justice.

Fee-splitting. Did you know that a Florida appeals court recently upheld a determination by the state's Board of Medicine that basing an employed physician's compensation on a percentage of the revenues the physician generated violated the Board's rules against fee-splitting? Although Maryland also bars fee-splitting, Maryland's Board of Physician Quality Assurance has not, as far as known, issued any determinations on this question.

High-cost patients. Did you know that the Maryland Medical Assistance Program has issued proposed regulations for a waiver program aimed at "high-cost" patients? The proposed program will provide an intensive level of case management to program recipients identified as high-cost users. The program will monitor the recipient's medical condition, housing status, and social issues impacting on health care. An enriched benefit package will be provided, offering services aimed at reducing the need for more expensive medical care.

Ohio Blues. Did you know that the national Blue Cross and Blue Shield Association (BC/BS) is trying to terminate the rights of its Ohio affiliate to use the BC/BS trademark if the Ohio affiliate proceeds with a proposed transaction to transfer 85 percent of its assets to Columbia/HCA? This matter is currently in litigation, involving the application of the BC/BS licensing guidelines, as well as the disposition of $302 million in reserves held by the Ohio organization.

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AMA News

American Medical Association

Significant gains won in Congress

During the past year, the 104th Congress passed many AMA-supported health care reforms that are guaranteed to enhance the quality of health care in America. Reforms included assuring insurance portability for workers changing jobs and coverage for patients with pre-existing conditions. Another top reform came from the revision of antitrust rules, prompted by legislation moving forward in Congress. "Now physicians will be able to form health plans to compete with commercial managed care plans at the community level," said Daniel H. Johnson, Jr., M.D., president of the American Medical Association.

Other Congressional actions promise improved fraud and abuse rules, and a pilot program for medical savings accounts. "The new fraud and abuse provisions will deal harshly with providers who knowingly defraud the system," said Dr. Johnson. "But they will not punish people who make honest mistakes."

"The medical savings account [MSA] program will allow limited testing of an idea that holds great promise for assuring cost-effective quality care," he added. "We think the MSAs should be added to the mix of available insurance options. The point is to have a number of vigorously competitive plans that patients can choose from."

A "baby bill" requiring insurance companies to provide coverage for a 48-hour hospital stay following the birth of a baby puts the decision of when a new mother is ready to go home back in the hands of the woman and her physician. Another important insurance reform is related to coverage parity for mental health patients. "It's only fair that mental health patients have equal lifetime coverage limits, especially in light of the dramatic advances in psychiatric medicine," Dr. Johnson said.

One last improvement was included in the final spending bill passed by Congress. "The inclusion of language clarifying the use of patents assures unimpeded transfer of information about new medical procedures," Dr. Johnson stated.

Important AMA-supported public health measures implemented by the administration include FDA regulation of the marketing of tobacco to minors, increased funding for medical research to the National Institutes of Health (NIH), and continued funding for the Agency for Health Care Policy and Research (AHCPR).

"One disappointment relates to the failure to gain anti-gag legislation that would protect information exchange between patients and physicians," he added. "The AMA saw the problems created by gag clauses in managed care contracts more than a year ago, and we encouraged introduction of corrective legislation."

"There is tremendous public support for legislative protection of information flow between patients and physicians, and we are sure that the anti-gag position will be introduced and passed with bipartisan support by the next Congress," Dr. Johnson said. ◆

Physician biographical information and reference library now available on AMA web site

The AMA has introduced a new program, *AMA Health Insight*, which contains both a patients' medical "Reference Library" and a physician information database called "AMA Physician Select." This database, the first of its kind available to the public and the most comprehensive listing of all U.S. physicians, allows patients to search the database by physician name, location, or specialty.

Only licensed physicians are included in the AMA's database. Searches can be conducted by 23 major specialties and 150 sub-

specialties, and by city, zip code, state, or name. AMA Physician Select provides the physician's name, gender, medical school, all residency and internship information, specialty board certification, AMA membership, and other significant biographical information.

The AMA Patient Reference Library contains information about the AMA and the medical profession, and a link to information and resources on diseases such as the *JAMA* HIV/AIDS Information Center. The HIV Center features clinical updates, daily news, and information on social and policy questions related to AIDS, under the direction of *JAMA* staff and an editorial board of leading HIV/AIDS authorities. ◆

Resolutions Approved at the September 8, 1996 House of Delegates Meeting

■ *Resolution 19-96 — Reactivation of Maryland Physicians, Inc.*

The House of Delegates adopted Resolution 19-96 as follows:

RESOLVED, That the Board of Trustees of the Medical and Chirurgical Faculty of Maryland establish a task force to reevaluate the option of developing a physician-owned health insurance company.

■ *Resolution 20-96 — Med Chi Establish Legislation to Eliminate Silent PPO Clauses in Managed Care Contracts*

The House of Delegates adopted substitute Resolution 20-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work to have legislation passed during the 1997 session of the Maryland General Assembly to pursue such action as is appropriate to prohibit carriers from assigning or otherwise transferring any of the physician's rights or obligations under his/her contract to others without the physician's knowledge and consent, and be it further

RESOLVED, That the carrier shall be prohibited from terminating, limiting or otherwise impairing a physician's contract on account of the physician's refusal to agree to any such assignment or transfer, and be it further

RESOLVED, That the carrier shall be prohibited from including in its contract with a physician a blanket "right to" assignment.

■ *Resolution 21-96 — Managed Care Utilization and Quality Review Programs*

The House of Delegates adopted Resolution 21-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work legislatively to require that managed care companies base practice protocols on sound current scientific principles, and consistent with AMA attributes, if available. These protocols will be disclosed to all contracting physicians and other affected health care providers, and be it further

RESOLVED, That any denial of coverage on the basis of medical appropriateness shall be based on consultation with a physician of the same specialty and subspecialty as the physician whose care is being denied, and be it further

RESOLVED, That such legislation require managed care companies to provide a written statement of reasons for a negative decision with an explanation of both the claimant's and the physician's appeal rights, and be it further

RESOLVED, That such legislation prohibit retroactive denial of treatments which have

been preauthorized by the managed care company, and be it further

RESOLVED, That Med Chi work legislatively or otherwise to grant the Board of Physician Quality Assurance authority to discipline physician medical directors who establish, implement, supervise or enforce practice protocols that contravene generally accepted standards of care, and further that such medical directors shall be subject to tort liability for their decisions, and be it further

RESOLVED, That Med Chi work legislatively to clarify the intent of current law and increase enforcement.

■ *Resolution 22-96 — Prepaid Prescription Plans*

The House of Delegates adopted Resolution 22-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work to ensure that managed care organizations or prepaid prescription plans attempting to substitute a physician's prescription be required to obtain approval first from the prescribing physician, and be it further

RESOLVED, That pharmacies participating in insurance drug plans renew medications when presented within one week of the expected renewal date and the physician be notified immediately should the medication not be renewed by the patient at any time, and be it further

RESOLVED, That this be referred to the Council on Legislation for action and to the Maryland Board of Pharmacy.

■ *Resolution 23-96 — Insurance Company Filing Deadlines*

The House of Delegates adopted Resolution 23-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work with the insurance industry, The Maryland Insurance Administration, legislatively so that any carrier-imposed filing deadlines of claims for services be reset when insurance companies contend that they have either not received a filed claim or require additional supporting documentation, and be it further

RESOLVED, That this be referred to the Board of Trustees for investigation of the extent of this problem among physicians and for proper disposition to the Council on Legislation, if necessary, and be it further

RESOLVED, That such work shall include development of appeal procedures for physicians whose claims are denied because of time constraints.

■ *Resolution 24-96 — Statute of Limitations on Retraction of Insurance Payments*

The House of Delegates adopted Resolution 24-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work with the insurance industry or legislatively to establish a six-month statute of limitations in the absence of fraud on the withdrawal of payments to physicians, and be it further

RESOLVED, That this be referred to the Council on Legislation for further action.

■ *Resolution 25-96 — Standardization of Computer Billing System Formats and Costs*

The House of Delegates adopted Resolution 25-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work to introduce legislation and otherwise to require all private software/hardware vendors, computer billing service and/or major health insurers promoting their own proprietary software to adopt the National Standard Format (NSF) and the American National Standards Institute (ANSI) formats in the interest of standardizing computerized physician billing systems and maintaining consistency with present industry practice, and be it further

RESOLVED, That such work shall encompass the requirements that (1) any conversions, inclusive of maintenance and technical updates, be fully clarified to physicians and their staffs by the vendors, billing agencies, or insurers through educational demonstrations, (2) all costs for such services be based on NSF and ANSI formats and will be borne by the carrier, and be it further

RESOLVED, That this be referred to the Board of Trustees for action.

- *Resolution 26-96 — Prohibition of Health Care Institutions Displaying Tobacco Advertisements in Patient Areas*

The House of Delegates adopted Resolution 26-96 as follows:

RESOLVED, That Med Chi shall encourage health care institutions in Maryland, including managed care organizations, hospitals, and health department clinics, to adopt a policy against the display in patient areas of periodicals and printed material containing tobacco advertisements, and be it further

RESOLVED, That the Med Chi Board of Trustees shall communicate this policy by letter with request for a response to each managed care organization and hospital in Maryland, and to the Department of Health and Mental Hygiene.

- *Resolution 27-96 — Managed Care Bonuses Based On Profit*

The House of Delegates adopted substitute Resolution 27-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work legislatively and otherwise to require managed care organizations as part of their promotional marketing materials, to publish a statement containing the amounts of compensation and bonuses paid to executives and officers of the managed care organizations and the proportion of their annual revenues that is spent on medical services, updated annually, and be it further

RESOLVED, That this be referred to the Council on Legislation for further action.

- *Resolution 28-96 — BlueCross BlueShield of Maryland*

The House of Delegates adopted Resolution 28-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland reaffirms its previously-stated opposition to BlueCross BlueShield of Maryland's attempt to convert to a for-profit corporation. However, if BlueCross BlueShield of Maryland does become a for-profit corporation, then be it further

RESOLVED, That the Medical and Chirurgical Faculty of Maryland will work toward the payment to the State of Maryland and/or charitable organizations of 100% of the fair market valuation of the assets of BlueCross BlueShield of Maryland in the event they receive State of Maryland permission to convert to a for-profit status, and take such other steps as may be necessary to obtain full value for the citizens of Maryland for the historic special privileges granted BlueCross BlueShield of Maryland by the State of Maryland and by the Maryland physician and provider community, and be it further

RESOLVED, That the Medical and Chirurgical Faculty of Maryland work toward a prohibition against the receipt of stock, stock options or other financial benefits by the BlueCross BlueShield of Maryland Board of Directors, officers, employees or their immediate families in connection with any conversion to a for-profit status, and be it further

RESOLVED, That this be referred to the Council on Legislation for action.

- *Resolution 29-96 — Post Injury X-Rays*

The House of Delegates adopted Resolution 29-96 as follows:

RESOLVED, That Med Chi work legislatively or otherwise to have HMOs allow orthopedists to take appropriate and timely

x-rays in their offices during the global follow-up period instead of sending the patient to a remote location, so as not to delay treatment, cause potential harm or otherwise adversely affect the patient's recovery, and be it further

RESOLVED, That this be referred to the Council on Legislation.

■ *Resolution 30-96 — Emergency Room Treatment By Out Of Network Physicians*

The House of Delegates adopted Resolution 30-96 as follows:

RESOLVED, That Med Chi work legislatively or otherwise to allow patients covered by an HMO to continue follow-up care for the global treatment period with an out of network physician after seeing that physician for a surgical procedure in an emergency situation, and be it further

RESOLVED, That there will be no premium or surcharge levied against the patient if the patient chooses to remain with the out of network treating physician for that injury and global period only, and be it further

RESOLVED, That the HMO will pay a reasonable and customary fee for the out of network treatment throughout the global period.

■ *Resolution 31-96 — Prostate Specific Antigen (PSA) Testing*

The House of Delegates adopted Resolution 31-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland support the use of PSA testing to reduce deaths from prostate cancer in the State of Maryland, and be it further

RESOLVED, That the Medical and Chirurgical Faculty of Maryland encourage HCACC to include PSA testing in its standard benefits package.

■ *Resolution 32-96 — Medical Savings Accounts*

The House of Delegates adopted Resolution 32-96 as follows:

RESOLVED, That individuals, employers, or both, be allowed to establish a "State Medical Savings Account" to be used for 1) the purchase of a high deductible insurance policy to cover an individual or family for costly major medical expenses, 2) payment for medical expenditures such as deductibles of the major medical insurance coverage, or rolled over into the following year or years for subsequent medical expenses, and be it further

RESOLVED, That the Medical and Chirurgical Faculty of Maryland will support legislation to establish a tax deductible State Medical Savings Account and will work with our AMA delegation to have the State of Maryland included in the pilot project for Federal Medical Savings Accounts.

■ *Resolution 33-96 — Board of Physician Quality Assurance*

The House of Delegates adopted Resolution 33-96 as follows:

RESOLVED, That the Medical and Chirurgical Faculty of Maryland pursue legislative changes that will protect Hospital Quality Assurance records from disclosure to the Board of Physician Quality Assurance, except when privileges are acted upon locally, and be it further

RESOLVED, That anonymous letters to the Board of Physician Quality Assurance not be acted upon, although signed letters may have their authors request anonymity to be respected after the Board of Physician Quality Assurance investigates the objectivity of the complaint.

■ *Resolution 34-96 — Formalizing Resident Physician Participation in The Maryland AMA Delegation*

The House of Delegates recommended Resolution 34-96 not be adopted. ◆

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1996 Semiannual Meeting



AMA Trustee Ted Lewers, M.D. (left), Alliance President Mildred Taylor (middle), and AMA Vice Speaker Dr. Knote (right) display a poster the Alliance sold at the semiannual meeting for the benefit of AMA/ERF.



Med Chi President-elect Thomas E. Allen, M.D., speaks to members during the House of Delegates meeting on September 6, 1996.



AMA Past President Robert E. McAfee, M.D., purchases a raffle ticket for the Alliance's AMA/ERF 50/50 drawing from crablet Ching Barretto, co-chairperson of AMA/ERF and past president of the Alliance.



Several physicians enjoy the financial advice and good humor found at the Med Chi Insurance Agency booth in the exhibit hall.



Med Chi members flooded the exhibit hall between CME sessions at Med Chi's semiannual meeting.



John A. Knote, M.D., vice speaker of the AMA, addresses the House of Delegates on September 8, 1996 at the Med Chi Semiannual Meeting in Ocean City, Maryland.



Med Chi Trustee Paul A. Stagg, M.D.(left), and Med Chi President Alex Azar, M.D.(right), answer questions at the House of Delegates meeting on Friday, September 6, 1996.

In spite of Hurricane Fran many Med Chi members braved the storm to attend the reference committee meetings on September 7th. The House of Delegates passed 16 of the resolutions that came out of the reference committees the following day. Please find them listed on page 905.



News From the Alliance

1996-1997 Alliance Presidents

Anne Arundel County

Ellen Reinig, Anne Arundel County's new Alliance president, hopes to increase Alliance membership. A wine and cheese party was held in August for new members. Ellen also plans to broaden community participation. Two important, ongoing community projects include the Charles Ballard Senior Health Center and Holiday Sharing.

Special projects and events include the AMA Alliance coloring books for children, a project aimed at health and violence issues. A fashion show is planned for November 1996. Food baskets will be used as centerpieces and then distributed to needy families through Holiday Sharing.

Ellen is married to James, a radiologist, and they have two daughters, ages eight and ten.

She also finds time to be a fifth grade room mother, and to be active in her church. She is a member of two book clubs.



Carroll County

Carroll County's new Alliance president is Pauline Coker. Pauline plans to concentrate on getting new members this year. The county has grown and many new physicians have located there. The Alliance will focus on getting to know these doctors' spouses.

Becoming involved in SAVE at the county level is this year's special project for the Alliance.

Pauline and her husband Donald, a general surgeon, have two children. Their daughter is fifteen and a sophomore at Garrison Forest. Their nine-year-old son is in the third grade at St. Paul's. It is easy to understand why carpooling for her children's activities occupies quite a bit of her time.



Frederick County

Janet Frizzell is the new president of the Frederick County Alliance. She hopes to continue providing scholarships, and has set a goal to surpass last year's record breaking success. In addition, SAVE is a very important goal for Frederick County. Hartly House, a halfway house for abused women, will also be supported, and this year the Alliance will sponsor one abused woman by helping her with clothing and other needs.

Janet has a full-time business and manages her husband's office. She also raises dogs. Janet is married to James, a radiologist, and they have two grown children — a married daughter in San Francisco and a son in Sydney, Australia.



Harford County

The new president of the Harford County Alliance is Susan Seidenberg. Susan hopes to increase membership and to retain the 49 current members. She also plans to have her Alliance hold a raffle and donate the funds raised to support SARC. Susan hopes to get a family through SARC during the holidays and buy food, clothing, and gifts for this family.

She has also recently become a member of Southern Medical.

In addition to her Alliance duties, Susan is on the board of directors of the Cancer Society (Harford County Unit). Susan is a registered nurse and participates in the Red Cross Blood Pressure Screening Program. She is also a member of the Women of Reformed Judaism and is active in her synagogue's school.

She and her husband Jonathon, an ophthalmologist, have a five-year-old son in kindergarten. Susan is also a room parent.

Prince George's County

Nancy Zephirin has assumed the presidency of Prince George's County Alliance this year and she has plans to revive the Alliance. Increasing the membership is an important goal.

Nancy hopes to have her members concentrate on breast cancer and other health projects.

When not involved with Alliance duties, Nancy donates her time to visiting nursing home residents. She also plays the piano. Nancy is married to Jacques who is a general surgeon. Together they have a 21-year-old daughter who has just graduated from college.



Washington County

Edith Edwards is Washington County's new Alliance president.

Edith plans to recruit new members and to retain current members. She also wants to provide opportunites for communication among all members. A fall coffee is planned and past projects supported by the membership will be honored.

Special projects this year include helping abused families, WHY ME, and scholarships. The Alliance is starting a foundation for cancer in honor of one of the physicians.

Edith is married to Bruce, an orthopedist, and they have three children, two sons, ages six and nine, and a ten-year-old daughter.



Wicomico County

Mellinda Brandon is now president of Wicomico County Alliance. Her Alliance has 160 members and she hopes to sustain an active membership.

The Alliance has several active health projects. Among them are HIV programs in schools and Organ Annie. Mellinda hopes to organize an event around National SAVE Day and will try to get the mayor of Salisbury to make a community-wide proclamation.

While not busy with Alliance activities and her family, Mellinda is teaching herself to become more computer literate. Mellinda and her husband Thomas, an orthopedist, have two children in school, a nine-year-old daughter and a 15-year-old son.

The following presidents are to be commended for continuing in their positions:



Allegany County

Mano Navo
(Mrs. Samuel)



Baltimore City

Adriana Zarbin
(Mrs. Gino)

Baltimore County

Anne Orrell (Mrs. Ronald) ◆

Med Chi

FAX Back Survey

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Maryland Medical Journal Readership Survey

November 1996

A description of Maryland's proposed uniform health care practitioner and payer payment system appears on p. 895. We would appreciate it if you would take a moment to review the article, along with Mr. Preston's letter on p. 895, and fax back a copy of this page containing your responses to the following questions, along with any written comments you may have on the payment system. You can also call Med Chi's comment line at 800-492-1056, ext. 415.

1. Do you support any effort by the State government to regulate physician fees?

   ❑ Yes ❑ No

2. Do you support the use of the payment system to assure a reasonable level of physician reimbursement by setting and requiring insurers to pay a minimum amount for all services?

   ❑ Yes ❑ No

3. Do you support use of the payment system to establish a uniform method of reimbursement among all payers, for example using Resource Based Relative Value Scale (RBRVS), assuming that all fee regulation elements of the payment system are stripped out of the law, and recognizing that physicians and payers alike would be required to set and publish one conversion factor at whatever level they choose?

   ❑ Yes ❑ No

We welcome your comments below:

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Joseph A. DiGiuseppe, M.D., Ph.D., and Michael J. Borowitz, M.D., Ph.D., are among the authors of an original article, "Multi parameter Flow-Cytometric Analysis of bcl-2 and Fas Expression in Normal and Neoplastic Hematopoiesis," published in the September 1996 issue of the *American Journal of Clinical Pathology.* The material was presented in part at the 84th annual meeting of the United States and Canadian Academy of Pathology, March 11-17, 1995, in Toronto. Dr. DiGiuseppe is a member of the department of pathology at Johns Hopkins Medical Institute. Dr. Borowitz is a professor and full-time academic faculty member in the departments of pathology and oncology at The Johns Hopkins Medical Institute.

Leonard Wartofsky, M.D., is the author of "Treatment Options for Hyperthyroidism" which appears in the September 15, 1996 issue of *Hospital Practice.* Dr. Wartofsky concludes that patients should understand that "successful treatment — whether with antithyroid drugs, radioiodine, or surgery — entails lifelong follow-up care." Dr. Wartofsky is chairman of the department of medicine, Washington Hospital Center, Washington, D.C. He also serves as professor of medicine and physiology, Uniformed Services University of the Health Sciences, Bethesda, and clinical professor of medicine, Georgetown University School of Medicine, and Howard University College of Medicine, Washington, D.C.

James S. Jelinek, M.D., Mark J. Kransdorf, M.D., Richard Gray, M.D., Albert J. Aboulafia, M.D., and Martin M. Malawer, M.D., coauthor an article on a technique entitled "Percutaneous Transpedicular Biopsy of Vertebral Body Lesions" (*Spine* 1996; 21: 2035–2040). The authors conclude that "Trans-pediculara biopsy of deep vertebral body lesions using a bone biopsy needle under computed tomography or fluoroscopy guidance can be performed safely and efficaciously as an outpatient procedure." Dr. Jelinek is with the departments of radiology and orthopedic oncology, Washington Cancer Institute, Washington Hospital Center, D.C., and the departments of radiology and nuclear medicine, Uniformed Services University of Health Sciences, Bethesda. Dr. Kransdorf is with the Washington Cancer Institute and the department of radiology, St. Mary's Hospital, Richmond, VA. Dr. Gray is associated with the Washington Cancer Institute. Dr. Aboulafia is with the Washington Cancer Institute and the department of orthopedics, The Emory University Hospital, Atlanta. Dr. Malawer is affiliated with the department of orthopedic oncology at the Washington Cancer Institute.

Peter J. Schmidt, M.D., Paul R. Gindoff, M.D., and David R. Rubinow, M.D., are among the authors of "Basal and Stimulated Gonadotropin Levels in the Perimenopause" in the September 1996 issue of the *American Journal of Obstetrics and Gynecology.* Dr. Schmidt is affiliated with the section on behavioral endocrinology, Biological Psychiatry Branch, National Institute of Mental Health, Bethesda. Dr. Gindoff is clinical director for IUF programs, and a professor of obstetrics/gynecology, at George Washington University. Dr. Rubinow is clinical director at the National Institute of Mental Health, Bethesda.

Robert S. Greenberg, M.D. is among the contributors to "Analysis of Regional Cerebral Blood Flow [CBF] in Dogs, with an Experimental Microbubble-based US Contrast Agent," an article which appears in the October 1996 issue of *Radiology* (201:119–123). The article concludes that color-doppler-amplitude US "can be used to create regional CBF maps and shows potential for noninvasive evaluation of CBF in the critically ill newborn." Dr. Greenberg is associated with the departments of pediatrics, anesthesiology and critical care medicine, and radiology at The Johns Hopkins University School of Medicine, and the applied physics laboratory, The Johns Hopkins University, Laurel.

Jordan J. Cohen, M.D., speaks to the past and present importance of clinical research in "Clinical Research is a Damsel in Distress" (*Academic Medicine* 1996; 71: 984). He asserts that "vigorous dialogue" is needed between the clinical research establishment and the managed care community for "continued success in spanning the continuum from the bench to the bedside." Dr. Cohen is president of the Association of American Medical Colleges, Washington, D.C.

Richard K. Osenbach, M.D., is the author of a case report entitled "Isolated Extra Nodal Sinus Histiocytosis Presenting as an Intramedullary Spinal Cord Tumor with Paraplegia" (*J Neurosurg* 1996; 85: 692–696). The author believes that this case represents "the first report of intramedullary spinal cord involvement as the initial and only sign of disease, although a number of cases of this entity involving the CNS have been published." Dr. Osenbach is with the division of neurosurgery, Walter Reed Army Medical Center, Washington, D.C.

Tsung-The Wu, M.D., Ph.D., and John Boitnott, M.D., coauthor "Dysplastic Nodules: A New Term for Premalignant Hepatic Nodular Lesions" in *Radiology (1996; 201: 21-22).* The doctors conclude that the most important task for future study is probably the identification of a clinical or molecular "marker" that can be used to help predict the behavior of individual dysplastic nodules.

Drs. Wu and Boitnott are affiliated with the department of pathology, the division of gastrointestinal and liver pathology, The Johns Hopkins University School of Medicine and Hospital.

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Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.



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  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

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The changing economic impact of infectious disease in Maryland: the "good old days" were terrible

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From The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, where Dr. Baker is a professor and Ms. Tse and Ms. Bowen are research assistants.

Infectious disease patterns change over time. However, the full effect of these changes on society has never been measured. This study examines the changes in Maryland from 1920 to 1940 and concludes that the reduction in infectious disease during this period is primarily the result of public health factors. Maryland's vital registration was reasonably well-established by 1920, and the state had neither the best nor the worst levels of health in the United States. During this period, immigration from Europe to Baltimore had virtually ceased and there was not yet a major influx of southern African-Americans. The early years were selected because it was important to measure changes in the infectious disease burden before antibiotics had a major impact. (Sulfa drug sales in 1940 were barely $3,000 in all of the United States.)[1]

Methods

This study uses a new approach to measure the burden of disease: potentially productive years of life lost (PPYLL) from premature death. We do not measure the impact of morbidity because the data are lacking in the early years, and the major impact of lost productive years comes from premature death rather than from morbidity.

There are several methods for estimating the burden of disease: years of productive life lost (YPLL), developed by the Centers for Communicable Disease,[2] disability adjusted lost years (DALY), developed by The World Bank,[3] and the method we used, PPYLL. These societal impact approaches have a long history. Landmark studies include, *Money Value of Man* by Dr. Louis Dublin[4] and publications by Dr. Dorothy Rice,[5] Dr. Burton Weisbrod[6] and others.

To calculate PPYLL, the years of life lost for deaths from each age group are summed. For example, deaths at age 15 would cause a loss of 50 years of potentially productive life if the average work span was from 15 to 65 years of age. (Note: there was a change in age of entry to the labor

Table 1. Illustrative Calculation Table: Monetary Benefit in 1994 Dollars

All Infectious Diseases - Value of Decreased Mortality in 1940 (compared to 1920)

	a	b	c	d	e
Age Group	Rate[1] x $PPYLL^2_{1920}$	Rate[1] x $PPYLL^2_{1940}$	*(a - b)* x 1940 Population/ 100,000	Average Earnings[3]	Value of Decreased Mortality[4]
Age 25-34	8,955.13	2,694.74	19,217	$24,933	**$479,146,669**

[1] *Death Rate = Deaths/Population per 100,000 for this age group*
[2] *PPYLL (Potentially Productive Years of Life Lost) = Total years lost are discounted at 3%/year from age 65 to midpoint of age group in which deaths occur.*
[3] *1994 Maryland per capita income*
[4] $\{(Death\ Rate_{1920} \times PPYLL) - (Death\ Rate_{1940} \times PPYLL) \times Population_{1940}\} \times Average\ Earnings_{1994\ Maryland\ per\ capita}$

force between 1920 and 1940. We estimated the effect of this change in work life span and found the difference between commencing work at age 15 and 18 to be negligible.) We also examined the three year averages of 1920 to 1922 and 1940 to 1942, and found little difference from the census years.

The economic concept of "discounting" future years of life lost is applied, at a rate of 3%, which The World Bank uses. Discounting reflects the economic principle that the value of a years' productive work is worth more to society today than in the distant future. For example, if a worker builds a house today, society will have the value of the house today. The house that the worker would build 30 years from now, would have lost 30 years of value to society.[7]

For the final step of our analysis, we subtracted the PPYLL due to infectious disease per 100 000 population in 1940 from that in 1920. The differences were then multiplied by the 1940 population to estimate the reduced impact of infectious disease on society. We placed the current (1995) monetary value on the decrease in mortality by multiplying the number of potentially productive years of life saved in 1940 by the 1994 per capita annual income for Maryland (**Table 1**).

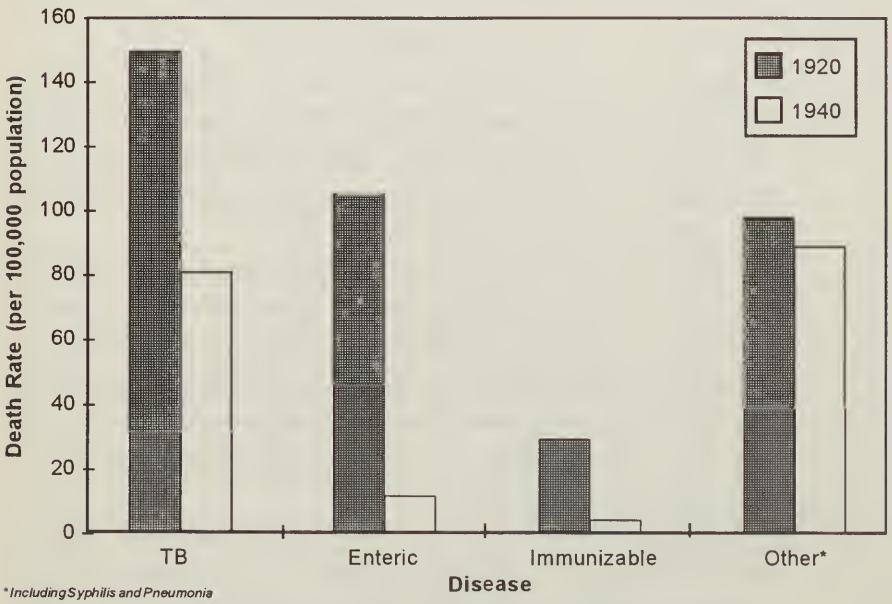


Figure 1. Death Rates for Infectious Diseases in Maryland 1920 and 1940

Sources of Data

Death registration data was obtained from the U.S. Mortality Statistics and U.S. Vital Statistics for 1920 to 1922 and 1940 to 1942.[8-13] We used population estimates from the censuses of 1920 and 1940 as our denominator in figuring age-specific death rates.[14,15] The 1918 to 1919 period was avoided because the effect of the influenza epidemic on mortality was a major isolated event.

There were classification changes in the International Causes of Death from 1920 to 1940. We reviewed these changes and built corrections into our analysis.

Results

Figure 1 compares the death rates for various categories of infectious disease. The greatest decline is in enteric disease. The potential reasons for decline are discussed in the next section.

Table 2 shows the calculations for PPYLL for all infectious disease if the 1920 rates had persisted to 1940. The major impact comes from the younger age groups in which deaths cause loss of a longer span of work years.

Table 2. 1920-1940 Disease Years Lost - Maryland

Infectious Diseases

	Age Group								
	< 1 Year	1-4	5-14	15-24	25-34	35-44	45-54	55-64	0-64
Rate x Yrs Lost - 1920	82,204.76	7,827.95	3,221.65	6,954.60	8,955.13	6,837.11	4,485.11	2,129.99	122,616.29
Rate x Yrs Lost - 1940	23,403.39	2,103.79	547.81	2,366.93	2,694.74	2,793.04	2,548.54	1,380.51	37,838.76
Difference	**58,801.37**	**5,724.16**	**2,673.84**	**4,587.67**	**6,260.38**	**4,044.08**	**1,936.57**	**749.48**	**84,777.54**
PPYLL / 100,000 Population*	**14,689**	**6,393**	**7,946**	**15,264**	**19,217**	**10,764**	**4,158**	**1,074**	**79,505.31**

** PPYLL / 100,000 Population = (Difference of Rates x Yrs Lost for 1920 and 1940) x (1940 Pop / 100,000)*

Table 3 shows the economic impact of public health programs on various infectious disease groups from 1920 to 1940. One disease, syphilis, actually showed an increase from 1920 to 1940. However, the apparent increase is undoubtedly spurious. Syphilis was seriously under-reported in the 1920s. By 1940, Surgeon General Thomas Parran's publication *Shadow on the Land* had had an impact on improved reporting of the "unmentionable" disease.[16]

Discussion

As expected, infectious disease mortality rates declined. However, the extent of the decline is surprising. Maryland would have lost 85 000 productive years of life from infectious disease in 1940 if the 1920 rates had prevailed. This loss is equivalent to almost 10% of Maryland's 1940 labor force.[15] Although other studies have shown the decline of infectious disease, pre-antibiotics, the economic impact had not been examined.[17]

The historic improvement in death rates has often been attributed to improved economic levels or improved nutrition. However, from 1920 to 1940 the per capita gross national product in constant dollars increased by only 12%. The calories per person per day increased by less than 2%. Thus, markedly improved earnings and nutrition are not likely explanations for the change.[18]

However, from 1920 to 1940 the following public health advances were made:

1) The water supply of Baltimore was improved and expanded by the construction of Prettyboy Dam and Reservoir in 1936, the new Guilford and Ashburton pumping stations, the improved Montebello Filtration plant in 1928, and the expansion of house water connections. Additionally, the effects of construction of the original Montebello Plant and Loch Raven Reservoir in 1915 were also felt in the 1920s. Baltimore water supply improvements were mirrored by other urban areas.[19]
2) Immunization coverage improved; for example, diphtheria immunizations increased to 84% coverage from 1922 to 1924 in a population which had practically no artificial immunizations prior to 1920.[20]
3) The Johns Hopkins School of Public Health, Demonstration Health Centers in Washington County, the Eastern Health District of Baltimore and similar public health centers in other jurisdictions were established. The founding of state and municipal tuberculosis sanitaria, diagnostic dispensaries, programs of the Instructive Visiting Nurse Association and the City and State Tuberculosis Nurses, and even the commercial pasteurization and home sterilization of milk, all helped to effect the decline of tuberculosis.[21,22,23]

Table 3. Potential Savings from Improved Public Health (1920-1940)

For Ages 0-64:

Disease	Excess Years Lost (PPYLL) if 1920 rates prevailed in 1940	Estimated Excess Earnings Lost if 1920 rates prevailed in 1940 (in 1994 Dollars)
Tuberculosis	23,843	$594,484,934
Enteric Diseases	20,344	$507,238,001
Immunizable Diseases	5,399	$134,606,443
Other*	12,939	$322,595,781

**Including Syphilis and Pneumonia*

Conclusions

Our analysis shows that indeed the "good old days" were terrible. The citizens of Maryland endured major losses of potentially productive years of life. These losses came primarily from infectious disease, which strongly impacts the younger age groups.

Today's potential decline of public health programs from extreme federal level budget cutting presents a serious danger to the citizens. As the AIDS epidemic evolves, new viral diseases emerge or are imported from overseas,[24] and existing diseases such as tuberculosis develop multiple-drug resistant strains, we must rely more and more heavily on public health measures. It is essential that public health programs be strengthened, not weakened.

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Med Chi Bicentennial Celebrations

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Type B lactic acidosis in an AIDS patient treated with zidovudine

Anita Aggarwal, D.O., Ph.D., Kahlid al-Talib, M.D., Mohamad Alabrash, M.D.

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ABSTRACT: *Human immunodeficiency virus type 1 (HIV 1) infection has been shown to cause myopathy.[1] Zidovudine, a nucleoside analogue, has also been shown to cause myopathy in HIV-infected patients.[2] Dalakas et al.,[1] were unable to distinguish the myopathy associated with HIV infection from the toxic mitochondrial myopathy caused by zidovudine. In a recent report, Chattha et al.,[3] described seven patients with Acquired Immunodeficiency Syndrome (AIDS) who developed type B lactic acidosis. Four of these patients were treated with zidovudine. A 100% mortality over a period of 15 months was observed. Zidovudine disrupts the mitochondrial deoxyribonucleic acid (DNA) that encodes for the respiratory chains, inhibiting the transport of lactate into the mitochondria. This may cause the accumulation of lactate in the cytoplasm, producing a severe metabolic acidosis. We present an AIDS patient with servere type B lactic acidosis which could have been associated with, or precipitated by, zidovudine.*

Presentation

A 33-year-old African-American heterosexual woman with AIDS presented with a three-week history of tachypnea, nausea, vomiting, anorexia and a 40-pound weight loss. There was a one-week history

of generalized weakness, myalgia, and numbness of lower extremities and abdomen, and a three-day history of blurred vision. She was unable to ambulate for two days, secondary to weakness and myalgia.

Within the nineteen days prior to this admission, the patient had seen her primary care doctor twice with similar complaints. She was treated for suspected sinusitis with a double course of azithromycin which she completed two days prior to presentation.

At the time of admission, the patient's medications were rifabutin 150mg bid, trimethoprim/sulfamethoxazole qd, fluconazol 100 mg qd, ranitidine 150 mg bid, and zidovudine 400 mg bid. The patient was started on these medications eight months prior when she presented with Pneumocystis carinii pneumonia and was diagnosed with AIDS. (Her CD4 cell count was zero.)

Investigations

Physical exam revealed a morbidly-obese female who was alert and oriented, anxious, and in moderate respiratory distress. She was afebrile, tachycardic (pulse 120 to 130), and tachypneic (respirations 24 to 30). Blood pressure was 160/85 mm Hg with no orthostatic change. No other physical abnormalities were noted. There was no motor or sensory neurological deficit.

Arterial blood gases (ABG) are shown in **Table 1**. At the time of admission, chemistry showed sodium 133 meq/1, potassium 2.6 meq/1, chloride 95 meq/1, and bicarbonate 9 meq/1, glucose 161 mg/dl, blood urea nitrogen 4 mg/dl and creatinine 0.7 mg/dl. Other abnormal laboratory values were: lactate dehydrogenase 906 U/1, inorganic phosphate 1.7 mg/dl and lactate level of 16.1 mmol/l. Trace acetone was also detected. Blood and urine drug screens were negative. Measured serum osmolarity was normal.

Blood counts were within normal limits (hemoglobin 13 g/dl, hematocrit 38.5%) except mean corpuscular volume of 114 cu micron with a normal reticulocyte count of 1.0%. Peripheral blood smear showed macrocytosis, few tear drops, basophilic stippling and atypical lymphocytes. Urinalysis revealed ketones, protein(30 mg/dl), many hyaline and granular cast and moderate bacteria. Disseminated intravascular coagulation (DIC) panel showed no fibrin split products, normal fibrinogen level, prothrombin time, thromboplastin time and sedimentation rate.

Table 1. Arterial blood gases and lactate levels

Day	-5	1	1*	2	2	2	3
Hour		0600	2000	0400	0900	1700	0700
pH	7.4	7.3	7.2	7.14	7.18	7.2	7.0
pCO2	21.5	12.4	9.7	21.8	20.5	23.0	17.0
pO2	108	130	92	245	227	238	219
HCO3	13.4	6.6	4.3	7.5	7.6	9.0	9.0
%O2sat	98	98	96	99	99	99	99
Lactate	ND	16.3	ND	19.5	ND	ND	23.0
AG	22	29	>30	>30	30	>30	>30

** patient was intubated after these results.*
ND=Not done
AG=Anion gap

Treatment

A presumptive diagnosis of lactic metabolic acidosis of unknown etiology was made. Although the patient was not hypoxic, we elected to intubate her for proper ventilation because she was showing signs of respiratory fatigue (assist control respiration 20/mm, tidal volume 800/mm and fractional concentration of oxygen 50%). Six hours after admission, arterial pH dropped to 7.2 and bicarbonate was less than 5 meq/1. The patient was started on a sodium bicarbonate drip in an attempt to replace a calculated bicarbonate deficit of 1700 meq. Zidovudine was stopped and the patient was treated empirically with intravenous antibiotics (ampicillin lg q6h; metronidazole 500mg q6h; gentamicin 200mg ql2h and doxycycline 100mg ql2h).

Multiple urine cultures, blood cultures and sputum cultures were negative. Creatine phosphokinase (CPK) and liver transaminases were within normal limits. Computed tomography (CT) scan of the abdomen without contrast, which was done on the second day of admission, showed an enlarged liver with fatty infiltration and few hypodense foci outside the liver of uncertain significance. At no time was the patient hypoxic or hypotensive.

Outcome

Despite all attempts to correct lactic acidosis, the bicarbonate level did not improve and ranged between 5 to 11 meq/1. The lactate level continued to rise to a maximum of 23 mmol/l and the pH decreased to 7.0. Hemodialysis was initiated to correct lactic acidosis but to no avail. The patient became bradycardic on the third day of admission and died.

Discussion

This is an AIDS patient treated with zidovudine who gradually developed type B metabolic lactic acidosis. Diagnosis of type B metabolic acidosis was based on an elevated level of lactate, without hypoxemia and the absence of other causes of high anion gap metabolic acidosis. There was a trace amount of serum ketones which could be attributed to patient's anorexia, nausea and vomiting.

Lactic acidosis is defined as a high anion gap (AG) metabolic acidosis with lactate level of >5mmol/l.[4,5] Lactic acidosis is divided into two categories.[6] Type A lactic acidosis, the form most commonly found in AIDS patients, is anaerobic in nature, with hypoxemia, sepsis, and shock. Type B lactic acidosis is found in malignancies, especially lymphoproliferative and myeloproliferative disorders, and in other processes such as diabetes, renal failure and chronic liver disease. A 75% mortality has been shown when the lactate level equals or exceeds 9 mmol/1.[4] A 100% mortality was described in seven AIDS patients with type B lactic acidosis whose lactate levels were 10 to 17 mmol/1.[3] The patient presented in our case report had comparatively high levels of lactate (16 to 23 mmol/1) in the absence of hypoxemia. Other causes associated with type B lactic acidosis were ruled out. We therefore conclude that our patient had type B lactic acidosis.

Zidovudine-induced lactic acidosis may be a result of the disruption of normal mitochondrial function. Zidovudine has been shown to produce a myopathy in this fashion.[1,2] Pyruvate undergoes cytoplasmic conversion to lactate. Under aerobic conditions, lactate is then transported via the glycerophosphate and malate shuttle into the mitochondria for further metabolism. Successful transport from cytoplasm to mitochondria requires intact functioning of respiratory chains. Disruption of the respiratory chains may lead to a cytoplasmic accumulation of lactate. Zidovudine has been shown to inhibit not only reverse transcriptase, but also cellular DNA polymerase, including the mitochondrial DNA that encodes for the respiratory chains. It may then be postulated that subsequent dysfunction of the respiratory chains inhibits transport of lactate into the mitochondria, leading to an accumulation of cytoplasmic lactate.

Our case study suggests that severe type B lactic acidosis in AIDS patients may be associated with or precipitated by zidovudine, and is likely to be a terminal event as suggested by others. [3]

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BOOK REVIEW GUIDELINES

Please keep the following points in mind when reviewing any book for the Maryland Medical Journal.

▼

Substance. Main idea.

▼

Background/expertise of author.

▼

For whom is the book meant?
Who is the intended audience?

▼

Importance for physician.

▼

Presentation of book —
readability, style, organization.

▼

Thank you for your assistance.



Call for Instructive Case Reports

The editors of the *Maryland Medical Journal* believe all practicing physicians—generalists and specialists alike—are a fertile source of instructive, experienced-based clinical anecdotes. The most memorable anecdotes illustrate the art as well as the science of medical practice; they teach a lesson that goes beyond the "facts" of the case.

We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission Requirements

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

CASE RECORDS

of the University of Maryland and Baltimore VA Medical Centers

A 56-year-old man with progressive dysphagia, dysarthria and ataxia

Susan D. Wolfsthal, M.D., discussant

R. Michael Benitez, M.D., editor

Dr. Wolfsthal is associate professor of medicine and residency program director, department of medicine and member of the division of general internal medicine at the University of Maryland School of Medicine. Dr. Benitez is a cardiologist and assistant professor of medicine at the University of Maryland School of Medicine. USA

Presentation of case

A 56-year-old man presented for evaluation of progressive gait instability and "thickened speech." These symptoms, in addition to vertical diplopia, began acutely two years before hospitalization, and resolved within two weeks. Over the following two years, the patient had progressively worsening dysphagia, dysarthria and ataxia. He complained of occasional right frontal headaches and nausea, chronic constipation, a 14-pound weight loss over the past three months, and a chronic non-productive cough. An outpatient evaluation included an electroencephalogram which showed bilateral anteroteporal spikes, a normal magnetic resonance scan of the head, and carotid duplex studies which revealed mild left carotid stenosis.

The patient had a fifty-pack-year history of smoking and had been diagnosed with chronic obstructive lung disease, peripheral vascular disease and coronary artery disease. He had previously consumed large amounts of alcohol (up to one case of beer per day) and had been told that he had alcohol-related liver disease. His medications included a beta blocker, aspirin and sublingual nitroglycerin. Family history was noncontributory.

On physical examination, he was a chronically ill-appearing white male. Blood pressure was 115/60, heart rate 80 and regular, respiratory rate 16 and he was afebrile. Bilateral temporal wasting was present. The lungs were clear to auscultation and percussion. The cardiac examination was normal. The abdomen was distended and a smooth liver edge was palpated six centimeters below the right costal margin. He was alert and oriented. His speech was slow and scanning, but his comprehension was normal. His immediate recall was intact and he was able to recall two objects at five minutes. There was no evidence of finger agnosia or right-left confusion. Visual fields were full. Pupils were equal in size and reacted appropriately. Fundoscopic exam was normal. Nystagmus was absent. Bilateral facial strength was normal. Motor exam revealed normal strength and muscle bulk. Sensation to pinprick, vibration, temperature and proprioception was intact. Cer-

ebellar examination revealed mild dysmetria with overshooting, right greater than left. Heel to shin was poor, right greater than left, and bilateral dysdiadochokinesia was present. Gait was ataxic with a negative Romberg's sign. Hyperreflexia was present in the lower extremities with plantar flexor reflexes.

The chest radiograph showed chronic obstructive lung disease without any active disease. A complete blood count, routine blood chemistries including serum calcium, magnesium and phosphate, and liver function tests were normal. A lumbar puncture was performed. The opening pressure was normal. The fluid was clear and colorless, and microscopic examination revealed no cells. An india ink preparation was negative. Glucose was 84 mg/dl (4.63 mmol/l), protein 38.9 mg/dl (389 mg/l) and an acid fast stain was negative. A computed tomogram (CT) of the chest and abdomen revealed a left hilar mass without adenopathy or pleural effusion, and right adrenal and right renal masses.

A diagnosis was made based on the results of a procedure that was performed and a laboratory test.

Differential diagnosis

The key points of this case can be broken down into three parts: the clinical features of the history, the findings on the physical and neurologic examination, and the CT scans. First, from the history, it is known that the patient has a progressive neurologic problem with dysphagia, dysarthria, and ataxia. He also had headaches, a moderate amount of weight loss, nausea, constipation and a non-productive cough. An outpatient work-up was notable for the presence of bilateral epileptogenic foci on an EEG, which could have been related to old trauma, an active inflammatory process or an incidental finding. Secondly, from the clinical examination, we know that the patient had hepatomegaly, clear evidence of severe cerebellar abnormalities and hyperreflexia. Lastly, from the radiologic studies, we know that there are three masses which are not in contiguous areas.

What could present with multiple masses, hepatomegaly and significant cerebellar dysfunction in an older man with an apparently terminal illness? A neoplastic process is very likely, especially a primary lung cancer with distant metastases or a multicentric neoplasm, such as oat cell carcinoma. This diagnosis is supported by the presence of a hilar mass on the CT scan, chronic cough and smoking history. Alternatively, an infectious or inflammatory process, such as tuberculosis, may be possible. This constellation of findings could also be due to a tumor originating in the kidneys or adrenal gland which spread to the lungs and liver. Or, the hepatomegaly could be unrelated and may represent fatty infiltration due to chronic alcohol consumption. However, given this clinical picture, it is most likely that he has a widely metastatic neoplastic process.

The abnormalities noted on neurologic examination bring an intriguing aspect to the case. The most prominent features of his neurologic examination are the cerebellar dysfunction, along with hyperreflexia and possible cortical process. The cerebellar dysfunction, as diagnosed from the pres-

Table 1. Distinctive Auto-antibodies in Neurologic Paraneoplastic Syndromes

Antibody	Neurologic Syndrome	Most Common Malignancy
Anti-Yo	Cerebellar degeneration	Breast and Gynecologic cancers
Anti-Hu	Encephalomyelitis	Small cell lung cancer
Anti-Ri	Opsoclonus	Breast cancer

ence of ataxia, dysdiadochokinesia and slow scanning speech, was the most profound and progressive of his symptoms. These findings may be due to a primary neurologic disorder, such as alcoholic cerebellar degeneration or von Hippel-Lindau's disease, or to progressive multifocal leukoencephalopathy (PML) or herpes simplex encephalitis in the immunocompromised individual. Although the patient is at risk for alcoholic cerebellar degeneration, his cerebellar findings are not limited to the truncal ataxia (due to vermian degeneration) normally seen in this condition. His examination is, however, suggestive of diffuse cerebellar dysfunction involving the vermis and both hemispheres, which is more suggestive of a global cerebellar problem rather than the localized process seen in patients with long-term alcohol use. In addition, the lack of findings on head MRI make it unlikely that the cerebellar findings are due to metastases to the brain. Given his examination and clinical course, a more likely diagnostic possibility is that the neurologic findings are due to extracranial disease, that is, a paraneoplastic process.

There are several clues in this case that a paraneoplastic process exists. Often a paraneoplastic process evolves slowly into a syndrome with severe symptoms over days to weeks or even a year. Although symptoms are often characteristic of one part of the nervous system, minor symptoms involving other portions of the nervous and muscular systems may occur at the same time, such as in an encephalomyelitis or a neuromyopathy. A pleocytosis may be present in the cerebrospinal fluid (CSF) along with an elevated concentration of protein and immunoglobulin (IgG) in the form of auto-antibodies. These auto-antibodies are distinctive, often correlate with the neurologic findings on physical examination, and may be present in the serum as well as the CSF (**Table 1**).

Although neurologic symptoms are common in patients with cancer, occurring in 6% to 25% of patients, a defined paraneoplastic syndrome occurs in less than 1%. Usually the paraneoplastic syndrome precedes the diagnosis of a malignancy, but it can also manifest itself after the cancer is diagnosed. If the neurologic symptoms occur first, it can be the first sign of an underlying malignancy. The incidence of cancer, especially small cell and ovarian cancer, in a patient with a neurologic paraneoplastic process can be significant. For example, patients who present with Eaton-Lambert syndrome have a 60% incidence of having an associated malignancy. The incidence of neoplasm is up to 50% in patients who present with cerebellar degeneration. Several other distinct syndromes, such as subacute sensory neuropathy, opsoclonus-myoclonus and encephalomyelitis, are also associated with an increased incidence of cancer, particularly small cell carcinoma and ovarian cancer **(Table 2).** Hence, the development of one of these characteristic neurologic syndromes should alert the clinician to search for an underlying malignancy.

Table 2. Incidence of Underlying Malignancy in Patients with Neurologic Paraneoplastic Syndromes

Paraneoplastic Syndrome	Incidence of Malignancy
Eaton-Lambert syndrome	60%
Cerebellar degeneration	50%
Subacute sensory neuropathy	20%
Opsoclonus - myoclonus	20%
Sensory motor neuropathy	10%
Encephalomyelitis	10%
Dermatomyositis	10%

There are four theories as to why these varied syndromes may occur. One theory is that they are caused by an autoimmune reaction, as in Eaton-Lambert syndrome. Here, IgG antibody is expressed by the tumor and targets the calcium channels at the neuromuscular junction. Removal of the antibody with plasmapheresis results in improvement of symptoms. Other possible

causes of these syndromes are the presence of an opportunistic viral infection, the secretion of a neurotoxic substance by the tumor, or competition between the tumor and the nervous system for essential nutrients.

The manifestations of paraneoplastic syndromes are as varied as the parts of the nervous system (**Table 3**). Syndromes which affect the brain and cranial nerves include subacute cerebellar degeneration, encephalitis, especially of the limbic system and brain stem, progressive multifocal leukoencephalopathy (PML), other dementias, opsoclonus-myoclonus, cerebrovascular disease, retinal degeneration and optic neuritis. The spinal cord can be affected by a subacute necrotizing myelopathy, anterior horn degeneration or a myelitis. In the peripheral nervous system, patients can develop a pure sensory neuropathy with degeneration of the dorsal root ganglia, a mixed sensory neuropathy, a subacute motor neuropathy, mononeuritis multiplex or even a Guillain-Barré-like syndrome. Effects at the neuromuscular junction include a myasthenic syndrome (Eaton-Lambert) or a myasthenia gravis picture. The muscles of these patients can be affected by a neuromyopathy, polymyositis or dermatomyositis.

Table 3. Predominant Sites of Paraneoplastic Syndromes

Central Nervous System and Cranial Nerves
Subacute cerebellar degeneration
Encephalitis, especially limbic and brain stem
Progressive multifocal leukoencephalopathy
Other dementias
Opsoclonus-myoclonus
Cerebrovascular disease
Retinal degeneration
Optic neuritis
Spinal Cord
Subacute necrotizing myelopathy
Anterior horn degeneration
Myelitis
Peripheral Nervous System
Pure sensory neuropathy
Degeneration of the dorsal root ganglia
Mixed sensory neuropathy
Subacute motor neuropathy
Mononeuritis multiplex
Guillain-Barré-like syndrome
Neuromuscular Junction
Myasthenic syndrome (Eaton-Lambert)
Myasthenia gravis picture
Muscles
Neuromyopathy
Polymyositis
Dermatomyositis

This patient's most predominant neurologic abnormality is cerebellar degeneration. Although it is the most common paraneoplastic syndrome affecting the central nervous system, it occurs in less than 1% of all cancer patients. It occurs twice as often in females than in males and onset is highly variable. Magnetic resonance imaging or a CT may detect cerebellar atrophy in up to 30% of cases. The CSF findings are nonspecific with a pleocytosis or elevated protein in 30% to 50% of cases. The major physical findings include ataxia, dysmetria, dysarthria and nystagmus. Other less common associated findings include upper motor neuron signs (40%), lower motor neuron signs (30%), decreased cognition (35%), sensory alterations (15%) and extrapyramidal signs (5%). Pathologic examination of the brain shows atrophy and loss of Purkinje's cells, with variable loss of other cell types and occasional lymphocytic perivascular or meningeal infiltration. The malignancies that are most commonly associated with cerebellar degeneration include small cell lung cancer, ovarian cancer, breast cancer and Hodgkin's lymphoma.

Anti-Purkinje cell antibodies (APCA) have become an important tool in making the diagnosis of cerebellar degeneration. The most commonly seen antibody in cerebellar degeneration is directed against the protein Yo. Anti-Yo antibodies are usually seen in women with breast or gynecologic malignancies, but have also been demonstrated in a male patient with adenocarcinoma of unknown primary. Atypical anti-cerebellar antibodies, such as anti-Hu and anti-Ri, are associated with small cell lung cancer and breast cancer, respectively.

Unfortunately, less than 25% of patients with cerebellar degeneration respond well to therapy. Patients with APCA often have a

rapidly progressive syndrome lasting days to weeks. Removal of the tumor rarely yields a response, and plasma exchange is unsuccessful. The poor prognosis may be due to irreversible cerebellar damage with Purkinje's cell loss or to immune mediated damage to the blood-brain barrier. The presently recommended therapy is aggressive treatment of the cancer and the use of immunosuppression in the early stages of the neurologic disease.

To make the diagnosis in this patient, a bronchoscopy should be done with biopsy of the hilar mass and bronchoalveolar washings to look for malignancy. Anti-Purkinje cell antibodies should be obtained.

Clinical diagnosis:

Subacute cerebellar degeneration with encephalitis; small cell carcinoma of the lung with metastases.

Clinical course:

The patient was admitted to the Baltimore VA Medical Center. Anti-Yo antibody titers were positive at 1:480. Anti-Hu antibodies were negative. He underwent bronchoscopy which showed a fungating mass in the left upper lobe. Biopsy of the mass revealed small cell carcinoma of the lung. The patient had a poor response to chemotherapy and died nine months later.

Final diagnosis:

Subacute cerebellar degeneration with anti-Yo antibodies secondary to small cell lung cancer.

Acknowledgment:

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Geriatrics for the Clinician

SCREENING FOR PROSTATE CANCER: THE ROLE OF PROSTATE-SPECIFIC ANTIGEN

"Man is a creature whose substance is faith. What his faith is, he is."
— *Bhagavad Gita*

The use of prostate-specific antigen (PSA) to screen for prostate cancer remains a controversial subject. It is clear from the debate that one's position depends as much on faith as on fact. This review summarizes what is currently known about the performance of PSA in cancer screening (fact), and the philosophy of both proponents and opponents of PSA screening (faith).

Background

Prostate cancer creates a substantial burden of morbidity and mortality, with an estimated 40 000 deaths and 244 000 new cases in 1995. Eighty percent of the diagnoses and ninety percent of the deaths occur after age 65. A 50-year-old man has approximately a 25.5 year life expectancy, during which he has a 2% to 3% risk of dying from prostate cancer, a 10% risk of developing clinical disease, and a 40% risk of developing microscopic (subclinical) disease. Risk is increased in African Americans and in those with a family history of prostate cancer.

Before PSA, digital rectal examination was the primary method of detecting prostate cancer. PSA is more sensitive than digital rectal examination, and will detect cancer in 2% to 2.5% of screened men, compared with 1.5% for digital examination.[1] Digital rectal examination will, however, detect 20% of the cancers which are missed by PSA screening, so the two methods are complementary. Digital examination does not have any clinically important effect on PSA levels.

PSA exceeds 4 ng/mL in 60% to 80% of men with prostate cancer (sensitivity), and is less than 4 ng/mL in 95% of men free of prostate cancer (specificity); these figures may overestimate the performance of the test because we do not know the true prevalence of cancer in men with normal PSA. Of men with a value greater than 4 ng/mL, 28% to 35% will have prostate cancer (positive predictive value).[1] Modifications of the PSA to improve its predictive value have shown little added benefit (PSA rate of change, PSA density, age-specific PSA values), or have not yet been sufficiently studied (free vs. complexed PSA).[2]

The case for screening

There is a steep gradient in 10-year survival from clinically localized prostate cancer (78%), to regional disease (55%), to metastatic disease (15%). To improve survival, a screening test must place more men at the favorable end of the continuum, and PSA screening does. Of men with newly diagnosed prostate cancer, the proportion with potentially curable (i.e., organ-confined) disease is one-third;[3] PSA screening doubles that proportion. A recent study estimated that PSA can detect cancers five and one-half years earlier than standard clinical diagnosis.[4]

Besides detecting cancer while it is still localized, the other challenge for a prostate screening test is to differentiate clinically meaningful cancers from the large number of incidental cancers available for detection. Proponents of PSA screening argue that PSA has not unearthed a large number of latent cancers. PSA detects cancer in approximately one in thirty screened

men, whereas one in three is estimated to have latent cancer. The characteristics of PSA-detected cancers are more ominous than those cancers diagnosed at transurethral resection (but less ominous than those diagnosed clinically).[5] Based on tumor volume and histopathology, several authors have judged 85% to 90% of PSA-detected cancer to be clinically significant, that is, likely to result in clinical morbidity and mortality if left untreated.[3]

The case against screening

While PSA screening does produce a shift towards identifying earlier stage cancers, it alone will not reduce prostate cancer mortality unless treatment of early stage cancer improves survival. It is unknown whether early treatment improves survival. The few trials of radical prostatectomy versus radiation versus watchful waiting for localized prostate cancer have not shown any differences, but their methodology was weak. Data from observational studies of prostate cancer survival are difficult to interpret because there are few reliable indicators of the malignant potential of early prostate carcinomas; the expected natural history of the disease is unclear. A randomized trial of radical prostatectomy versus observation is in progress, but results are not expected for a decade. Furthermore, there is real morbidity associated with definitive therapies for localized disease. Complication rates for prostatectomy include mortality 1% to 2%, impotence 25%, incontinence 6% to 25%, rectal injury 3%, and urethral stricture 18%.[1]

To find the 2% to 3% who have cancer, 15% to 20% of the men participating in PSA screening will need additional testing, often needle biopsy, which has its own attendant risks of infection and rectal injury. Opponents of PSA screening argue that investment in PSA testing and acceptance of the associated risks of treatment can only be justified by a randomized trial demonstrating a survival benefit from screening. Drawing accurate conclusions from observational studies is difficult because of lead-time bias (five- and ten-year survival rates are inflated by detecting cancers earlier, even if the natural history is ultimately unchanged) and length bias (less aggressive cancers are preferentially detected by screening because they are in the population longer than tumors which quickly kill their hosts). A randomized trial of PSA screening is underway, but again results are not expected for a decade. To guide decisions in the interim, several decision analyses have modeled the risks and benefits of PSA screening. These decision models have suggested that PSA screening is associated with a small decrease in quality adjusted life expectancy.[6]

Conclusions

The last two decades have seen a 200% to 300% increase in prostate cancer incidence, with most of the increase attributable to enhanced detection of early cancers: the incidence has paralleled first the increased use of transurethral resection for benign disease (with incidental detection of cancer), and then PSA for screening. As a result of this increased detection, radical prostatectomy rates have tripled since the early 1980s and quadrupled for men over age 70.

These numbers indicate a great deal of faith in the benefit of early detection of prostate cancer. The straightforward logic of "get it while it's small and before it spreads" is powerful, turning possibility into imperative — if there is a way to find cancer, one must use it and avoid not

being able to say "we did all we could." What receives less weight in this decision calculus (but not in decision analysis) is the harm done to those without significant disease by incorrect labels and inappropriate interventions.

Because more definitive data on PSA screening are a decade away, current practice will continue to rest on faith and beliefs: faith in the logic of early detection, and beliefs about what constitutes adequate evidence, merits action versus nonaction, and justifies seeking aggressive cure versus doing no harm. Since these philosophical viewpoints may differ from patient to patient and clinician to clinician, across-the-board recommendations regarding PSA screening are not currently possible. However, based on current information, it does not seem appropriate to screen men with a life expectancy of less than ten years, based on either age or comorbidity. For other men, the best approach is to promote an informed decision by explaining our uncertainties and their options.[7]

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Vignette of Medical History: Francois Rabelais, M.D.

Francois Rabelais (1484 - 1553?) was a renowned author, recounting stories in a clear, concise manner and avoiding long, harassing exposition of his intent. Born someplace in Turaine, he was an eminent physician, humorist, and comic satirist. [1,2] Rabelais has been described as a monk by convenience, a doctor by choice, an editor by disinterested zeal, and finally, a writer as it offered him a stage to exuberantly examine history, drama, and medicine.

Rabelais was educated early on at the Abbey of Seuilly, and later, most likely at the University of Angers or the convent of La Baumette. He then became a Franciscan monk at Fontenay-le-Compte, where the environment was notoriously unlearned. Nevertheless, he vigorously pursued his studies and in 1524, through the influence of a former school-fellow, Geoffroi d'Estissac, Bishop of Maillezais, Rabelais obtained permission from Pope Clement VII to transfer to the Benedictine order. This change afforded him greater tolerance and access to improved scholarship, and he stayed there for five years. Subsequently, he studied at various universities. He graduated in November 1530 as a bachelor from the faculty of medicine in Montpellier, having had medical studies elsewhere. Being required to give public lectures after graduation, he discussed the works of Galen and Hippocrates. By 1532, he was in medical practice at the Hotel-Dieu in Lyons. There, he published several medical works. In 1537, he was awarded the degrees of licentiate and doctor of medicine at Montpellier.

Rabelais was well acquainted with satire, a medley of verse or prose and probably the only literary form invented by the Romans. Rabelais's favorite Greek author was Lucian, who lived in the late period of the Roman Empire. A philosophical satirist writing in Greek prose, he had a profound influence on Rabelais's style.[3] Rabelais's style was flexible, abundant, brilliant, complex, and thoroughly original. His terms came from philosophy, science, law, theology, and medicine. To these, he added fantastic prose of unique origin. Occasionally his barnyard

language, salted with other (non-French) languages, may seem repulsive.

Rabelais's most famous works, *The Five Books of Gargantua and Pantagruel*, a satirical masterpiece and one of the great works of European literature, are the products of a scholar with a mind replete with original ideas.[4] His language is unusual, lusty, and filled with expressions from Renaissance science. Although frequently an ironic scoffer, he was capable of deep realistic piety. His satire was reasonably directed toward his conception of liberty.

As a physician, Rabelais was more than well acquainted with the terminology of medicine. Some of his medical descriptions are extremely amusing. Three marvelous examples of Rabelais's medical vocabulary are: The wounds inflicted by Friar John (The First Book, Chapter XXVII, 87-89); the advice given by the physician, Rondebilis, (The Third Book, Chapter XXXI, 406-410); and the anatomical description of King Lent by Xenomane (The Fourth Book, Chapter XXX, 586-592). He used words like Gertrude Stein would use later, when words, not composition, seemed important.

Far from being a classical member of French literature, Rabelais is sometimes difficult to understand and admire. He was not a great artist, as his work is often rough and silly. Nonetheless, Rabelais may have affected the literary output of succeeding individuals. His breezy, imaginative style has overtones in the work of at least three individuals.

1. The reputation of Spanish novelist Miguel de Cervantes (1543-1616) rests almost entirely upon *Don Quixote*, although he authored a number of other works.[5] This novel was a satire directed towards the chivalric romances of his time. His assortment of characters provides a panoramic view of 17th century society.

2. The French author Savinian Cyrano de Bergerac (1619-1655) wrote the fantasies *Comical History of the States and Empires of the Moon* and *Comical History of the States and Empires of the Sun.*[6] His character descriptions are broadly satirical of contemporaneous society and politics.

3. The *Tale of a Tub* by Jonathan Swift (1667-1745) is a Rabelaisian, allegoric satire about the divisions of Christianity.[7] Ironic digressions characterize the work. In *Gulliver's Travels*, Swift presents a witty description of contemporary life and times through the medium of travel to unusual lands.[8] Swift satirizes the abuse of human reason by man as reflected in political, social, and academic institutions. Playful and fantastic, the book is a witty, allegorical description of political life and a bitter denunciation of man.

Above all else, Rabelais was a satirist who was coarse, boisterous, and grotesque. He was a complete realist, intensely interested in education and enjoyment of life.

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Life After Medical School. Leonard Laster, M.D. New York, NY: W.W. Norton & Company; 1996. 344 pages. $27.50 (hardcover).

Life After Medical School is a collection of thirty-two autobiographical interviews with physicians from various specialties and practice settings. Although the book is intended for medical students and those thinking about a career in medicine, practicing physicians contemplating a career change or having reservations about their current practice setting would be a secondary audience. The author, who is Chancellor Emeritus of the University of Massachusetts Medical Center, provides a prelude, post script, and brief introduction to each of the five vignette groupings: field of medicine, specialization or not, thoughts from training directors, national policy makers, and obstructed paths.

Overall, the stories read well and express the feelings and the thought processes of the subjects as their careers progress and evolve. However, the book suffers from a lack of geographic diversity. The majority of contributing physicians were from, or spent a significant portion of their career in, the same geographical area. Ages are not given, but it is obvious that few are recent graduates of their training and I wonder whether the circumstances influencing many of the careers could be duplicated today in other areas across the country.

Nonetheless, *Life After Medical School* is enjoyable reading. The interesting stories and insights provide some reassurance for those who are less than convinced about the rewards of a medical career.

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■ ■ ■

Choosing Medical Care in Old Age – What Kind, How Much, When to Stop. Muriel R. Gillick, M.D. Cambridge, MA and London, England: Harvard University Press; 1994. 213 pages. $19.95 (hardcover).

Gillick is a geriatrician and she has written this book largely for the laity. The book is easy to read and discusses the problems faced by physicians, payers, families and society in approaching the final years of life. Gillick indicates that few hard and fast answers exist and that many factors must be considered in arriving at the intensity, duration and goals of testing and therapy. She points out that many of

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these decisions can not be dogmatically and conveniently categorized. By citing numerous examples from her own practice, she repeatedly emphasizes that the full involvement of the patient (where possible), the patient's family, other paramedical and social workers, as well as the physician, are necessary for the best possible "successful" resolution.

While preparing this publication, Gillick was faced with the demise of both her father-in-law and mother-in-law and was thus able to provide the additional perspective of a close family member dealing with the incapacitated and terminally ill. After a prologue which describes the personal situation involving her relatives and the justifications for the decisions that were made, she divides her book into five chapters: The Demented Elderly, The Robust Elderly, The Dying Elderly, The Frail Elderly and Institutional Changes. She emphasizes that because of the many differing attitudes and values of those involved, early preparation for this stage of life is imperative.

In the chapter entitled Institutional Changes, Gillick makes numerous suggestions for the alteration in attitudes and activities of everyone involved — hospitals, nursing homes, the health insurance industry, physicians, and patients. While many of these proposals are well considered, the probability of a significant number of them being accepted in the foreseeable future would appear remote.

Gillick includes several hundred references for those who are interested in further study. She also includes a reasonably complete index.

While this is a book the practicing physician can heartily recommend to all patients, especially the middle-aged, it also makes interesting and easy reading for practitioners.

Marion Friedman, M.D.
Dr. Friedman, a retired Baltimore family physician and internist, is the editor of *The Maryland Family Doctor.* ■

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- "A Birth-Control Crusader"
  Atlantic Monthly, October 1996
- "Your Health in 2000"
  Futurist, September/October 1996
- "Bad Medicine: Aids, Culture, and Women"
  Harvard International Review, Summer 1996
- "Your Family History: What Risks Did You Inherit?"
  Health, October 1996
- "Outsmarting the Migraine"
  Harper's Bazaar, October 1996
- "Cellular Phone Risks for Pacemakers"
  Consumer's Digest, October 1996
- "Can HMOs Help Solve the Health-Care Crisis?"
  Consumer's Reports, October 1996
- "Plastic Surgery?"
  Style, September/October 1996
- "Lupus: Misunderstood, Misdiagnosed"
  Women's Day, October 8, 1996
- "Medical Breakthroughs: New Ways Doctors Heal"
  Family Circle, November 1, 1996
- "Here's To Your Health"
  The American Spectator, October 1996
- "America's First Big High"
  Civilization, August/September 1996
- "The Frontiers of Medicine"
  Time, Fall 1996 Special Issue
- "Attention: Aging Men"
  Newsweek, September 16, 1996
- "Redux: The New Diet Drug"
  Time, September 23, 1996
- "My Doctor, My Friend"
  Child, October 1996
- "Revolving Door Deliveries"
  Parenting, September 1996
- "What Heart Murmurs Mean"
  Parents, October 1996
- "Life at 2000"
  The New Yorker, September 30, 1996
- "Breast Health: A Lifesaving Guide"
  McCalls, October 1996
- "Touch Me, Heal Me: What Can Bodywork Do For You?"
  Ms., September/October 1996

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The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

Men's health, Sheraton Inner Harbor Hotel, Baltimore, MD. 7.5 Cat 1 AMA credits. Fee: $150/ physicians; $95/residents, fellows, and allied health professionals. — **Nov. 11**

Advanced pediatric life support courses, 18.5 Cat 1 AMA credits. Fee: $595. — **Nov. 11–13, June 9–11, 1997**

MGA\AGS series, Department of Mental Hygiene, The Johns Hopkins University, School of Hygiene and Public Health, Keswick Nursing Center, 40th Street, 6:00–7:00 p.m., light refreshments served 5:30 p.m.). Credits: TBA. Sponsored by the Maryland Chapter of the American Geriatrics Society (AGS) and the Maryland Geontological Association (MGA), with assistance of the Geriatrics Committee of the Maryland Academy of Family Physicians. Info: Donna Meisel Weinreich, 675-3244 (e-mail:dmeisel@umabnet.ab.umd.edu) or Joseph J. Gallo, M.D., M.P.H., 955-0599 (e-mail:jgallo@welchlink.wlech.jhu.edu).

- **Is it elder abuse?** — **Nov. 12**
- **Managed care and the elderly: Opportunities and challenges** — **Dec. 10**
- **TB prevention in long term care** — **Feb. 18**
- **Perioperative management of the elder adult** — **Mar. 11**
- **Pain management in the older adult** — **Apr. 29, 1997**
- **Preventative geriatrics** — **June 17, 1997**

Ophthalmology for the pediatrician and practitioner, Cat 1 AMA credits available. Fee: $130/ physicians; $95/residents, fellows, allied health professionals. — **Nov. 15**

The first Johns Hopkins international symposium on gastrointestinal motility disorders, Harbor Court Hotel, Baltimore, MD. 14 Cat 1 AMA credits. — **Nov. 15–16**

Women's Issues in HIV, Credits: TBA. Fee: $280/physicians; $210/ nurses, allied health; $140/ residents, fellows. — **Nov. 21–22**

Seventh annual neurology for the primary practitioner, Harbor Court Hotel, Baltimore, MD. Credits: TBA. Fee: $135/physicians; $85/ residents, fellows, allied health professionals. — **Dec. 14**

14th Annual gastroenterology update: Multidisciplinary approach–An exercise in interactive gastroenterology, Silvertree Hotel, Snowmass Village, Aspen, Colorado. 19 Cat 1 AMA credits. Fee: $495/physicians; $375/residents, fellows, allied health professionals. — **Feb. 9–14, 1997**

Management of auditory and vestibular disorders and vestibular practicum, Credit: TBA, Fee: $400/physician; $300/residents, fellows, allied health professionals. Practicum: $75. — **Mar. 12–13, 1997**

Update on Alzheimer's disease and other dementias, Renaissance Harborplace Hotel, Baltimore, MD. Up to 7 Cat 1 AMA credits. Fee: $145/physicians; $110/psychologists in practice; $90/residents, fellows, allied health professionals. — **Apr. 12, 1997**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

The Johns Hopkins Medical Institutions (continued)

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

17th National Trauma Symposium, Hyatt Regency Hotel, Baltimore, MD. 15.5 Cat 1 AMA credits. Fee: $395. Info: 410-328-2399. **Nov. 7–9**

The comprehensive management of multiple sclerosis, Marriott Inner Harbor Hotel, Baltimore, MD. 6 Cat 1 AMA credits. Fee: $100. Info: Kenneth Johnson, M.D., 410-328-6483. **Nov. 8**

The modality approach to treating esophageal cancer, Glen Burnie, MD. 1 Cat 1 AMA credit. Fee: $15. Info: Cathy Johnson, 1-800-373-4111. **Nov. 11**

Prostate cancer: Choosing between therapies for localized disease, Baltimore, MD. 1 Cat 1 AMA credit. AAFP prescribed. Fee: $15. **Nov. 12**

Preparing today for tomorrow's managed care, Turf Valley Resort and Conference Center, Ellicott City, MD. 6 Cat 1 AMA credits. Fee: $15. Info: Leslie Murphy, 410-987-1048. **Nov. 12**

Promising new treatments for esophageal cancer. Easton, MD. 1 AMA Cat 1 credit. AAFP prescribed. Fee: $15. Info: 1-800-373-4111. **Nov. 13**

Why brain attack now? Loews Annapolis Hotel, Annapolis, MD. 1 Cat 1 AMA credit. Fee: $15. **Nov. 20**

New strategies and therapies for stroke, Cross Keys Inn, Baltimore, MD. 6.25 Cat 1 AMA credits. Fee: $50. **Nov. 22**

Brain attack symposium: New strategies & therapies for stroke, Baltimore, MD. 1 Cat 1 AMA credit. Fee: $15. **Nov. 22**

Why brain attack now?, Aberdeen, MD. 1 Cat 1 AMA credit. Fee: $15. Info: 1-800-373-4111. **Dec. 11**

Promising new treatments in esophageal cancer. Columbia, MD. 1 Cat 1 AMA credit. AAFP prescribed. Fee: $15. Info: Cathy Johnson, 1-800-373-4111. **Dec. 18**

Self-Directed CME Activities

Disease management of lipid disorders (audio tape and test), 1 Cat 2 AMA credit. Expires 6/97. Info: Sharon Stenhouse, 410-706-3936.

CD-ROM based interactive multimedia radiology teaching file for Mac or PC w/ single user licenses (SUL), site license (SL), or multi-site license (MSL), 60 Cat 1 AMA credits. Expires 4/98. Fee: $149/SUL, $395/SL, $595/MSL. Info: Lorraine Smith, 410-528-8502.

University of Maryland School of Medicine (continued)

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956. — **Oct. 24–26**

Miscellaneous

Delmarva Foundation for Medical Care, Easton, MD. 3 Cat 1 AMA credits. Info: Roxanne Rodgers, 410-822-0697.

Health care improvement for physicians	**Nov. 8**
Health care improvement for physicians	**Nov. 9**
Health care improvement for physicians	**Dec. 13**
Health care improvement for physicians	**Dec. 14**
Health care improvement for physicians	**Jan. 17**
Health care improvement for physicians	**Jan. 18**
Health care improvement for physicians	**Jan. 29**

15th Annual scientific meeting of the American Pain Society: "Pain and disease: causes, consequences, and solutions." Info: Eric J. Penne, 847-375-4830. — **Nov. 14–17**

Medical care of women in the era of HIV disease (three-part series), The Medical and Chirurgical Faculty of Maryland, 1211 Cathedral St., Baltimore, MD, 7:00–9:00 a.m., Credits: up to 6 Cat 1 AMA credit. Fee: $15/session; $40/ series.

HIV in the perinatal period	**Dec. 4**
Successful patient education and counseling strategies for the busy practitioner	**Jan. 15, 1997**
Clinical management of the HIV positive woman	**Feb. 5, 1997**

Surveillance of the vaccine-preventable diseases, a Public Health Training Network Satellite Video conference, sponsored by the Centers for Disease Control and Prevention, the National Immunization Program, the Council of State and Territorial Epidemiologists, the National Association of County and City Health Officials and the Public Health Training Network. The Center of Immunization, Maryland Department of Health and Mental Hygiene will host. CME credits available. Info: 410-767-6679. — **Dec. 5**

Cutaneous melanoma '96: A clinical symposium for primary care practitioners, sponsored by The Skin Cancer Foundation and Memorial Sloan-Kettering Cancer Center, Memorial Sloan-Kettering Cancer Center, New York, NY. 6.5 Cat 1 AMA credits. Info: Ludmilla Popoff, 212-639-6754. — **Dec. 7**

Thirteenth annual CME clinical update in pulmonary medicine, Trump Plaza Hotel and Casino, Atlantic City, NJ. Sponsored by the Department of Pulmonary Medicine, Deborah Heart and Lung Center. CME accreditation by Medical Society of New Jersey. AAFP and AOA credits. Fee: $225. Info: Roberto Silver, 201-385-8080. — **Dec. 7**

24th Annual Williamsburg conference on heart disease, sponsored by the American College of Cardiology, Williamsburg Lodge, Williamsburg, VA. 18.5 Cat 1 AMA credits. Info: 800-253-4636, ext. 695. — **Dec. 8–11**

Miscellaneous (continued)

Reimbursement and managed care: essential reimbursement strategies in emergency medicine, sponsored by the American College of Emergency Physicians, Hyatt Regency, Baltimore, MD. 15 Cat 1 AMA credits, 15 Cat 1 ACEP credits. Info: 800-798-1822. **Apr. 3–4**

Getting control: effective procedure coding for emergency medicine, sponsored by the American College of Emergency Physicians, Hyatt Regency, Baltimore, MD. 15.5 Cat 1 AMA credits, 15.5 Cat 1 ACEP Credits. Info: 800-798-1822. **Apr. 4–6**

Leadership conference, sponsored by the American College of Emergency Physicians, Stouffer Mayflower Hotel, Washington, DC. credits: TBA. Info: 800-798-1822. **Apr. 6–7**

Legislative issues forum, sponsored by the American College of Emergency Physicians, Stouffer Mayflower Hotel, Washington, DC. Credits: TBA. Info: 800-798-1822. **Apr. 7-9**

Self-Directed CME Activities

Maryland physicians' campaign against family violence, module one: domestic violence, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10, 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Maryland physicians' campaign against family violence, module two: child maltreatment, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10, 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Continuously throughout the year

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 am. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, Zamoiski Auditorium, Thursdays, 9:00–10:00 a.m. Info: 410-578-5528.

PHYSICIAN'S RECOGNITION AWARD

During August 1996, the physicians listed below received the American Medical Association (AMA) Physician's Recognition Award. Established in 1968, the award's purpose is to encourage physician participation in continuing medical education and to recognize those physicians who have voluntarily completed programs of continuing medical education.

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EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM

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November, 1996
Cryptosporidiosis and Other Diseases Added to the List of Laboratory Reportable Diseases

Reporting of cases of infectious diseases and related conditions remains a vital step in controlling and preventing the spread of communicable disease. These reports serve many uses including assurance of provision of appropriate medical treatment (e.g., tuberculosis), early identification of emerging problems (e.g., influenza), detection of common-source outbreaks (e.g., foodborne and waterborne outbreaks), triggering control activities (e.g., restrictions from certain jobs), and monitoring the effectiveness of prevention and control programs (e.g., for vaccine-preventable diseases).

As of October 1, 1996, **medical laboratories** in Maryland will be required by law to report six additional diseases to the health department. These diseases include cryptosporidiosis, *E. coli* O157:H7, Lyme disease, pertussis, Rocky Mountain spotted fever, and shigellosis. The latter 4 of the 6 diseases have been and remain reportable by physicians and health care providers in Maryland. Once reported to the health department, cases will be contacted and investigated to identify the most probable source of infection, whether there are others ill, the need to institute control measures, and other items. Consequently, you may increasingly be asked by your patients about cryptosporidiosis and *E. coli* O157:H7.

New Emphasis on Cryptosporidiosis

In addition, the U.S. Environmental Protection Agency (EPA) has ruled that some large water companies should test raw, and in some cases, finished water for microbial agents, including *Cryptosporidium*. This plan is known as the Information Collection Rule (ICR) which was recently published as a Final Rule. Considerable interest in the results of this testing is expected, especially among the immunocompromised population. In advance of this new information, physicians can play an invaluable role in educating patients about what measures are most appropriate and effective for reducing their overall risk of cryptosporidiosis. The adjoining fact sheet and the following information may assist you in answering questions, especially in counseling immunocompromised individuals regarding waterborne cryptosporidiosis:

- The magnitude of risk for acquiring cryptosporidiosis by drinking municipally treated water in the non-outbreak setting is

vary from city to city depending on the quality of the city's source of water and the quality of water treatment provided. Current risk data are not adequate to recommend that all immunocompromised persons in the U.S. boil or avoid drinking tap water. However, persons with severely weakened immune systems should be advised that the risk is not zero.

- Individuals who wish to take extra measures to avoid waterborne cryptosporidiosis can bring their drinking water to a rolling boil for one minute. Boiling water is the most effective approach for killing *Cryptosporidium*.

- As an alternative to boiling water, certain types of individual or household filters may provide nearly the same level of protection. Only filters that remove particles one micrometer or less in diameter should be considered. The National Sanitation Foundation (NSF) International can provide a list of filters that meet NSF certification (1-800-NSF-8010). Patients should be advised to carefully follow the manufacturer's instructions for the use and replacement of filters. In addition, since *Cryptosporidium* oocysts are likely to concentrate on the outside of a filter cartridge that has been in use, patients should have someone else change dirty cartridges or they should use gloves if they do it themselves.

- Many, but not all, brands of bottled water may provide a reasonable alternative to boiling tap water. The origin of the source water, the types of microoganisms in that water, and the treatment of that water before it is bottled vary considerably among bottled water companies and even among brands of water produced by the same company. Therefore, individuals should not presume that all bottled waters are absolutely free of *Cryptosporidium*. Bottled waters derived from protected well and protected spring water sources are less likely to be contaminated by *Cryptosporidium* than bottled waters containing municipal drinking water derived from less protected sources such as rivers and lakes. Any bottled water treated by distillation or reverse osmosis before bottling assures *Cryptosporidium* removal.

- HIV-infected persons should not drink water directly from lakes or rivers; this includes accidental ingestion of lake or river water while swimming or engaging in other types of recreational water activities.

- The amount of chlorine and types of filters used in public swimming pools are not adequate to prevent transmission from swimmers infected with *Cryptosporidium*. Patients should be advised that these activities may expose them to *Cryptosporidium*, especially if the pool is used by young children who might wear diapers or who might accidentally defecate in the pool. Because HIV-infected patients who have cryptosporidiosis can reinfect themselves and infect others, they should not use swimming pools that will be used by others while they carry *Cryptosporidium*.

The pamphlet "You Can Prevent Cryptosporidiosis: A Guide for People with HIV Infection," is under development at the Centers for Disease Control and Prevention (CDC). Preventive measures in addition to those listed above include: handwashing, avoiding fecal exposure during sexual activity, avoiding touching farm animals and the stool of pets, washing and/or cooking food thoroughly, and finally, taking extra care while traveling to developing countries. The CDC National

AIDS clearinghouse can be reached at (800) 458-5231 for more information.

At the present time, **treatment** is based on rehydration and symptomatic therapy. No reliable or curative treatment exists; however, many agents are under study. If the individual is taking immunosuppressive drugs, these should be stopped or reduced if possible.

Physicians should suspect *Cryptosporidium* in patients with diarrhea that persists beyond three days and should specifically request testing for this organism when ordering a stool test. Diagnosis is made by identification of oocysts in fecal smears or of life-cycle stages of the parasites in intestinal biopsy sections. Current laboratory methods cannot determine if these oocysts are viable or infectious, and strain differences cannot be discerned. Serologic assays may be helpful in population-based studies; efforts are underway to establish the onset, magnitude, and duration of the antibody response to *Cryptosporidium*.

For more information on cryptosporidiosis, please contact Jean Taylor, M.P.H., Epidemiologist, DHMH, at 410-767-6712.

References

Centers for Disease Control and Prevention. Assessing the public health threat associated with waterborne cryptosporidiosis: report of a workshop. MMWR 1995;44 (No.RR-6).

Goldstein, S.T., et al. 1996. Cryptosporidiosis: an outbreak associated with drinking water despite state-of-the-art water treatment. Ann. Int. Med. 124(5): 459-468.

Juranek, D. D. 1995. Cryptosporidiosis: sources of infection and guidelines for prevention. Clin. Infect. Dis. 21 (suppl 1): S57-61.

MacKenzie, W. R., et al. 1994. A massive outbreak in Milwaukee of *Cryptosporidium* infection transmitted through the public water supply. NEJM 331(3): 161-167.

State of Maryland Department of Health and Mental Hygiene. Cryptosporidiosis -- A Growing Public Health Concern. Communicable Diseases Bulletin. September, 1995.

Ungar, B. L. P. 1995. *Cryptosporidium*. Pages 2500-2510 in Principles and Practice of Infectious Diseases, 4th edition, G. L. Mandel, et al., editors. Churchill Livingstone, Inc. New York.

U.S. Environmental Protection Agency and Centers for Disease Control and Prevention. Guidance for people with severly weakened immune systems. May 17, 1995.

Attached for your information:
Cryptosporidiosis Fact Sheet
Various Communicable Disease Fact Sheets
provided by the Epidemiology and Disease Control Program, Department of Health and Mental Hygiene

E. coli O157:H7 Fact Sheet

E. coli O157:H7 is one of many strains of the bacterium *Escherichia coli*

Most strains of *E. coli* are harmless and live in the intestines of healthy animals and humans. *E. coli* O157:H7 is a strain of *E. coli* that produces a toxin and can cause severe illness.

People usually become infected with *E. coli* O157:H7 by eating contaminated food

The organism can live in the intestines of healthy cattle. Eating meat (especially ground beef) that is rare or undercooked is the most common way of becoming infected. Drinking unpasteurized milk and swimming in or drinking sewage-contaminated water can also cause infection. The bacteria are present in an infected person's feces and may be spread from person to person.

E. coli O157:H7 may cause severe bloody diarrhea and abdominal cramps

Sometimes it causes nonbloody diarrhea or no symptoms. Symptoms begin 3 to 8 days after exposure. Hemolytic uremic syndrome (HUS) is a serious complication that occurs in some infected people, particularly children under 5 and the elderly. In this syndrome, red blood cells are destroyed and kidney failure occurs.

Infection can be diagnosed by detecting the bacterium in the stool

Your health care provider can request a special culture for *E. coli* O157:H7 from a laboratory.

See your doctor if you think you may have this infection

- Most people recover without specific treatment in 5 to 10 days. Fluid and electrolyte replacement is important when diarrhea is watery or there are signs of dehydration. Antidiarrheal agents should be avoided.
- HUS is a life-threatening condition that is usually treated in an intensive care unit.
- If foodhandlers, health care and day care workers, children in day care, or anyone in the family of such people have an *E. coli* O157:H7 infection, they should contact their local health department to get specific recommendations.

Infection with *E. coli* O157:H7 can be prevented by:

- Eating only thoroughly cooked meats
- Consuming only pasteurized milk and dairy products
- Eliminating cross-contamination from raw foods to cooked ones by thorough washing of cutting boards, utensils, and hands, and by discarding used meat packages
- Avoiding sewage-contaminated water
- Washing all fruits and vegetables before eating
- Washing your hands thoroughly with soap before and after handling foods, before eating, and after using the toilet or changing diapers

Cryptosporidiosis Fact Sheet

Cryptosporidium is a parasite that causes diarrhea

Cryptosporidium infections (cryptosporidiosis) have been reported in humans and a wide variety of animals such as cattle, dogs, and cats. Infected humans and animals shed the parasite in their feces. As a result, *Cryptosporidium* can be found in any environment that is contaminated by the feces of infected humans or animals. The parasite then gets into lakes, rivers, drinking water reservoirs, and ground water contaminated by these surface waters. The parasite is highly resistant to chlorine, which is commonly used as a disinfectant in drinking water treatment plants.

Transmission can occur by coming in contact with contaminated feces of infected humans or animals, including:

- Getting contaminated water or food in your mouth
- Person to person contact particularly in day care centers
- Handling of infected pets, farm animals, or their feces
- Sexual activity that involves contact with feces

Symptoms appear 2 to 12 days later

While symptoms usually include diarrhea, stomach cramps, fever, and nausea, some infected people may have no symptoms. People with normal immune systems usually have symptoms for one to two weeks and then recover fully. However, people with weakened immune systems, such as cancer patients, organ transplant recipients, and HIV infected persons, may have more severe diarrhea that can persist long enough to become life-threatening.

There is no specific treatment for cryptosporidiosis

Replacing fluid lost through diarrhea may be needed. Healthy people usually get better within two weeks. Patients with severe or long-lasting diarrhea should call their doctor.

Tests are available to look for *Cryptosporidium* in feces and in water

The Environmental Protection Agency (EPA) will begin to have certain large water companies routinely test water for *Cryptosporidium.*

Cryptosporidiosis can be prevented

- Avoid drinking untreated water from lakes, streams, springs, or any other untreated sources
- Boil any water of unknown quality for at least one minute before consumption (including water used in drinks and to make ice)
- Avoid any direct contact with human or animal feces
- Wash hands after using the toilet, changing diapers, and before handling food or eating
- Wash hands after contact with or cleaning up after pets
- Wash hands after gardening or other direct contact with the soil
- Avoid unpasteurized milk products
- Avoid eating unwashed fruits and vegetables
- Avoid swallowing water during swimming, even in public swimming pools
- Check with your doctor to see if you should take any other measure to avoid cryptosporidiosis if you have a weakened immune system

People with weakened immune systems may want to take extra action to reduce the risk

- Such action may include boiling water, or using certain filters or bottled water for <u>all</u> the water they drink including tooth brushing
- Such people should check with their doctor

Lyme Disease Fact Sheet

Lyme disease is caused by a bacterium

You can't catch Lyme disease from another person

It is transmitted by the bite of a certain type of tick called *Ixodes scapularis* (formerly *I. dammini*). Ticks must usually be attached to the body for several hours before they can transmit the Lyme disease bacteria *(Borrelia burgdorferi)*. Very few tick bites will result in Lyme disease.

Symptoms appear 3 to 32 days after tick bite

Most people with Lyme disease will get a characteristic rash called erythema migrans (EM) where they were bitten. The rash starts as a small red area which expands in a circular manner to two or more inches across. The center of the rash may clear giving a "bull's eye" appearance. Other symptoms such as fever, headache, tiredness, stiff neck, joint pain, and swollen lymph nodes may also appear. If untreated, the heart, nervous system, or joints may be affected weeks to months later.

Anyone can get Lyme disease

People who spend time outdoors in tick-infested areas (wooded, bushy, or grassy places) are at an increased risk of exposure. A person can get Lyme disease more than once.

Blood tests are available

Blood tests taken in the early stage of illness when treatment should begin may be negative. During this stage, diagnosis is usually made on signs and symptoms and history of tick bite. The tests may remain negative in persons successfully treated early with antibiotics. Blood tests are usually positive after 30 days.

Lyme disease can be treated; see your doctor if you think you have Lyme disease

Treatment for Lyme disease is based on early signs and symptoms and a history of a tick bite or tick exposure. Early treatment will prevent later complications.

You can prevent Lyme disease:

- Inspect your body (including the hair on your head) for ticks after being outdoors
- Use tick repellent--follow directions on the package label
- Minimize bites by walking in the middle of the paths and staying clear of tick-infested areas
- Wear light colored clothes to help spot ticks
- Wear long pants and long sleeved shirts
- Tuck pant legs into socks, and tuck shirt into pants when hiking
- Remove attached tick by grasping the tick as close to the skin surface as possible and pulling straight back with a steady force; use forceps or tweezers if available; protect bare hands by using gloves, cloth, or tissue; do not squeeze the tick's body

Clean the bite site after removing a tick as you would with any minor wound

Pertussis (Whooping Cough) Fact Sheet

Pertussis is a disease of the lungs and throat caused by a bacterium

Bordetella pertussis is the bacterium (germ) that causes pertussis. The germ is highly contagious and is easily spread from person to person.

Pertussis is spread by close contact with someone who has the germ

The bacterium is shed in the discharges from the nose and throat from just before onset of symptoms until up to 3 weeks after symptoms start. Treatment with antibiotics shortens the contagious period to about 5 days. Anyone can get pertussis who has not had pertussis or pertussis vaccine. Half of the cases occur in children less than one year old. Older children and adults can carry the germ and spread it but have only mild symptoms.

Symptoms to look for:

- Low fever
- Cough-mild at first, then severe with times of deep rapid coughing and a "whoop," worse at night
- Vomiting after coughing

Symptoms start within 7-10 days after exposure. Symptoms can last for 6-10 weeks.

Although most people recover, complications of pertussis can be severe

Pertussis can be a very bad illness in children less than one year old, especially in premature babies or babies with lung disease. Pneumonia, seizures, and nerve problems are common, and death can occur.

See a doctor for treatment

Pertussis is usually treated with erythromycin. Some children may need to be hospitalized. People in close contact with children or adults who have pertussis usually need erythromycin and may need vaccine.

Pertussis disease can be prevented with pertussis vaccine

Every child should get pertussis vaccine at 2, 4, 6, and 15 months of age, and another dose at 4 to 6 years old. This vaccine is given as one shot to protect against pertussis, diphtheria, and tetanus.

Shigellosis Fact Sheet

Shigellosis is a bacterial infection of the intestines

It causes symptoms such as:

- Diarrhea (sometimes with blood or mucus)
- Stomach cramps
- Fever
- Nausea or vomiting

Symptoms occur from 1-7 days after exposure but usually within 1-3 days. Symptoms last an average of 4-7 days. Some infected people, especially adults, may not show any symptoms.

Shigellosis is most common in young children

Anyone can get shigellosis, but those who may be at greater risk include children in day care centers and their parents, foreign travelers to certain countries, institutionalized people, and men who have sex with other men.

People get shigellosis from other people

Shigella germs are present in the stool of infected humans. The germ is spread to the mouth of other people either by direct contact with an infected person's stool or by eating or drinking contaminated food or water. Primates, which are the only animals that develop shigellosis, are rarely a source of human infection.

Handwashing is the most important way to prevent infection

Shigella bacteria are passed in the stool, **so wash hands with soap and water**:

- After using the toilet
- After changing diapers
- After touching any stool-soiled material
- Before fixing any food or drink, and
- Before eating

Help young children to wash their hands.

See your doctor if you have diarrhea or possible shigellosis

- Most people recover on their own. Some may require fluids or antibiotics.

- Foodhandlers, health care and day care workers, children in day care, or persons in the family of such people who have shigellosis should contact their local health department to get specific recommendations.

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Three new antiepileptic drugs — vigabatrin, gabapentin, and lamotrigine — provide alternatives in the management of older patients with refractory partial seizures. Each appears to have a unique mechanism of action. Clinical trials indicate that routine lab monitoring is not necessary for the safe and effective use of these drugs. They also do not induce liver enzymes or alter the metabolism of other antiepileptic drugs, thus minimizing the risk of interactions. Potential side effects of these agents include dizziness, somnolence, and other signs of central nervous system (CNS) depression (*Geriatrics* 1996;51:42–45).

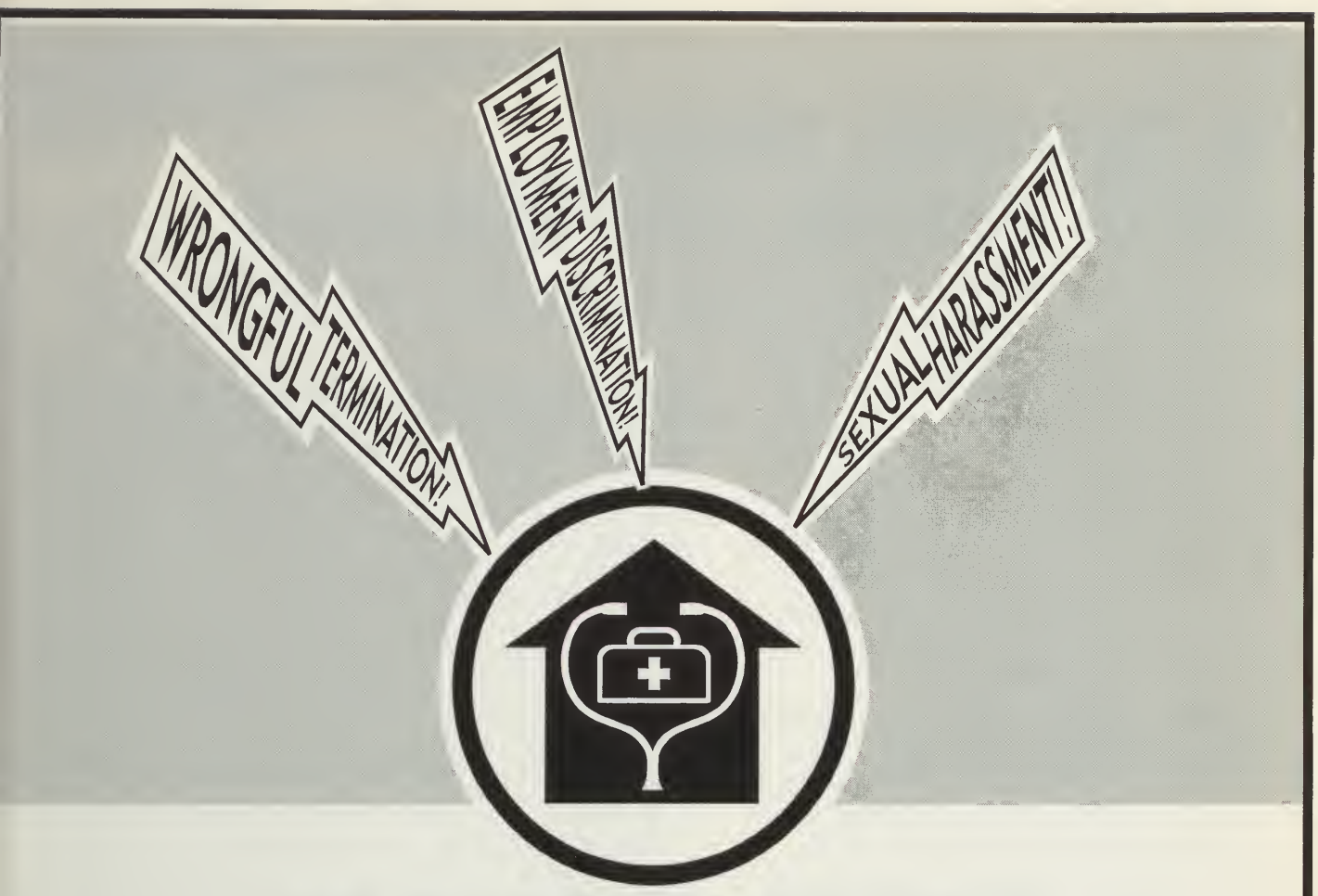
The physician's approach to patients described as somatizers or hypochondriacs is often unsatisfactory. As many as 40% of primary care appointments have been attributed to people who somatize. This article suggests how providers can avoid unnecessary expensive or invasive tests, and help the patient in more beneficial, cost-efficient ways, while still preserving a physician-patient relationship based on empathy, acceptance and trust (*Arch Fam Med* 1996;5:458–463).

Multiple sclerosis is a chronic inflammatory disease of the central nervous system (CNS), associated with periods of disability (relapse) alternating with periods of recovery (remission), and often results in progressive neurologic disability. Treatment with high-dose pulses of intravenous methylprednisolone is usually associated with a good short-term outcome. **A recent study suggests that interferon beta-1b may decrease the number of relapses in relapsing-remitting multiple sclerosis by** 30%, and also may decrease the development of new CNS lesions. Recently, another clinical trial of interferon beta-1a showed a 31% reduction in relapse rate, and a significant reduction in the average number of active lesions. A third trial showed that 20 mg of copolymer-1, a random polymer of glutamic acid, lysine, alanine and tyrosine, reduced relapses by 21% without significant side effects. Further investigation is needed, but these new treatments show great promise in alleviating this difficult problem (*Am Fam Physician* 1996;54:1301–1311).

Although reported violent acts appeared similar for women and men, women reported substantially more injuries than men as a result of intimate-partner physical violence. In addition, injuries to women from intimate-partner physical violence are underestimated when based on reports from emergency departments and physicians' offices. Estimates from a recent emergency department survey indicate that 23% of women who had been physically assaulted or emotionally abused by a boyfriend or husband sought medical care because of trauma, and only 13% had told staff, or were asked by staff, about domestic violence. Because women presenting for health care may be hesitant to admit they were victims of intimate-partner violence, **broadening of inquiries about violence to all female patients has been advocated by professional organizations** (*MMWR Morb Mortal Wkly Rep* 1996;45:765–767).

Prevention of infectious disease is an important component of medicine. One goal of Healthy People 2000 is to reduce the rate of complications and death from infectious diseases by increasing the rates of immunization. **Influenza and pneumococcal vaccines are indicated for high-risk groups, including all persons age 65 or older.** Influenza immunization should be offered during routine office visits from September through November. Pneumococcal vaccine may be repeated after 6 years, and may be given concurrently with the influenza vaccine. Other vaccines to consider (depending on the patient's perceived level of risk) include hepatitis B, tetanus toxoid, measles-mumps-rubella, hepatitis A and varicella (*Geriatrics* 1996;51:47–53).

Elderly patients may be more susceptible than younger persons to the sedating and anticholinergic effects of first-generation antihistamines. Second-generation antihistamines, such as loratadine, astemizole and terfenadine, cause minimal sedation and little impairment in cognitive and psychomotor activity in healthy nonelderly patients. Toxic effects to the cardiovascular system, an issue of greater concern among elderly patients who may have subclinical heart disease, has not been observed with first-generation antihistamines. Among the second-generation antihistamines, however, including astemizole and terfenadine but not loratadine, can cause serious cardiovascular adverse effects, including death, when taken in high doses or co-administered with katoconazole, itraconazole, or macrolide antibiotics (*Arch Fam Med* 1996;5:464–468).



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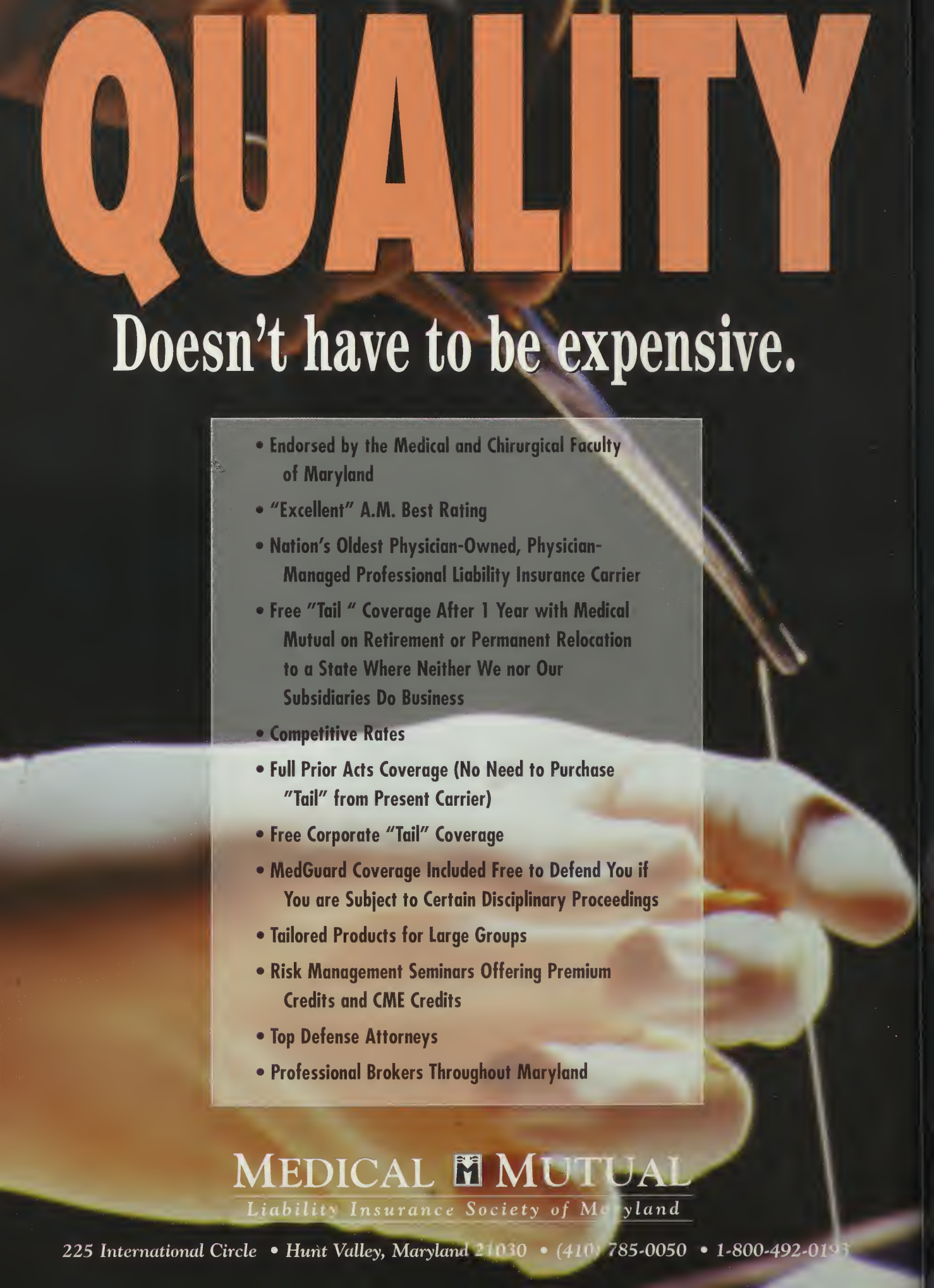
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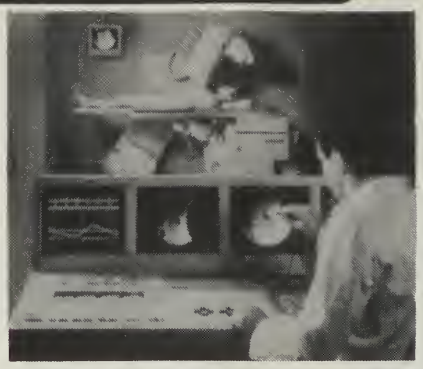
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From the Editor's Desk

The editorial board of the *Maryland Medical Journal* wishes to sincerely thank our former editor, John W. Buckley, M.D., and our former managing editor, Mary Ann Ayd, for their services to this journal and to the members of Med Chi over the past more than two and one-half years.

Dr. Buckley worked untiringly to improve the journal's quality and to provide its readers with scientific, historic, and pertinent economic presentations that were useful to a diverse medical audience. Mary Ann was enthusiastic, talented, and devoted. She was able to assemble our offerings into readable and attractive forms. Between the two of them many new features were initiated, including page fillers (informative and frequently amusing brief bits of information placed in areas formerly left blank) started in January 1995, "Cite Seer" (highlights of important articles from other clinical journals) begun in February 1995, "What Your Patients May Be Reading" originated in May 1995, and "Perspectives" (less clinical medically related articles) initiated in June 1995. Also not to be forgotten are the issues devoted to single subjects such as sports medicine and the endeavors of Maryland physicians during World War II. On occasion, under their leadership the journal gained national recognition.

Their continued friendship and support is evidenced by their insistence that, while they will no longer be actively or officially associated with the *Maryland Medical Journal*, we call upon them at any time for advice and direction. Be assured that those now directing this journal will afford ourselves of the talents of these dedicated friends. We wish them well in their future activities.

MARION FRIEDMAN, M.D., EDITOR

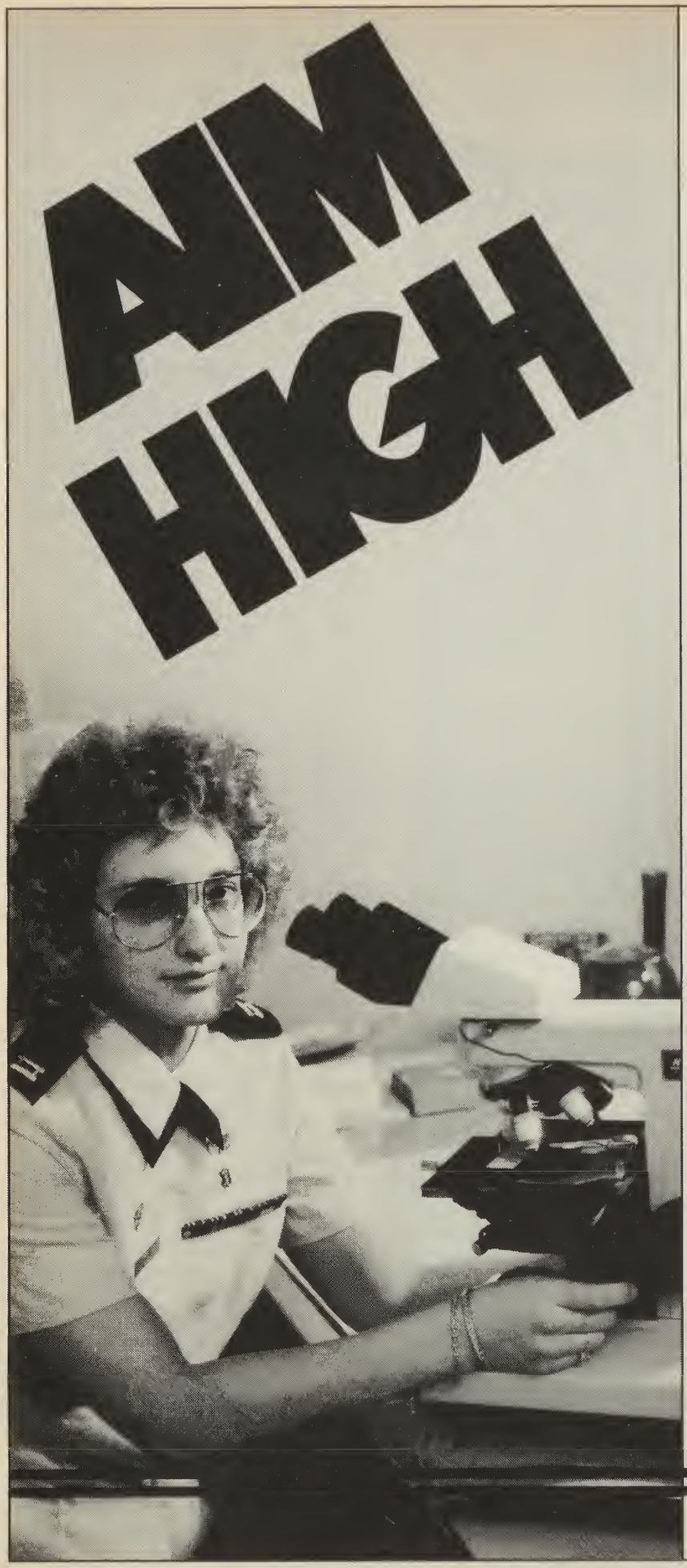
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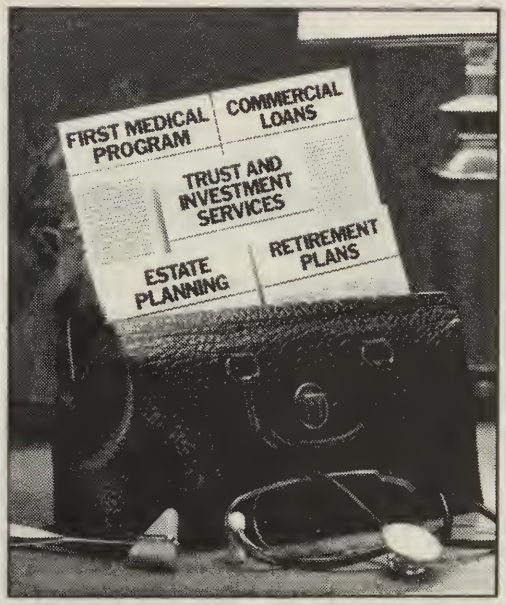
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NEWS
MED CHI
MEDICAL JOURNAL
MARYLAND
December 1996

President's Letter

Dear Colleagues:

The *Maryland Medical Journal (MMJ)* is pleased to preview in this issue both the 1997 legislative session and exciting changes planned at Med Chi for the new year.

Legislatively, Med Chi will push an aggressive set of initiatives, most of which emerged from 1996 Med Chi House of Delegates resolutions. These resolutions, which appear on page 985, show the value of active membership in Med Chi. Each resolution arose from a real-life problem encountered in practice by a member, whose participation in our society brings a very strong likelihood for success in changing public policy to help solve the problem.

There is only one catch: success requires your help — your action. Med Chi's position on an issue carries weight because Med Chi *is* the thousands of highly-educated, community-oriented, opinion-leading, patient-advocates who make up our membership. Med Chi is you. And as good as our lobbyist, Jay Schwartz, is — he is not a physician.

It is the phone calls, the letters, and the personal testimony from physicians that is especially powerful in communicating to elected officials the reality of the problem that our initiatives are designed to solve. The delegates and senators (and sometimes even the paid bureaucrats) *really do* want to know what you think. So, if the initiatives described in the legislative prospectus "strike a chord" with you, take the time to fill out the "fax back" survey that appears on page 982 to indicate your interests. Med Chi staff and Jay Schwartz will use this information to bring you into the process of making our case to the legislature.

If you think "there oughtta be a law. . .," help make it happen. And, if you think an idea is way off- base, we need to know that too. In either event, Med Chi can only do its job successfully when you're involved.

Internally, starting in January Med Chi will improve its reporting of legislative and other news by commencing publication of a monthly newsletter, *Med Chi Physician*, in addition to the *MMJ*. This new format will allow more timely reporting of regulatory and practice news, and will allow the *MMJ* to focus on its strength: scientific and special interest writing. Other exciting changes, including our new Internet address (www.medchi.org) are described in the executive director's letter on the following page.

Med Chi is making changes to serve you better. In order for Med Chi to stay effective, we need you to stay involved — Med Chi is as good as you are.

Sincerely,
Alex Azar, M.D.
PRESIDENT ◆

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Executive Director's Letter

Dear Med Chi Member:

If it isn't timely, it isn't useful. This is the premise behind a change that will appear in January, when your *MMJ* will be accompanied by a new monthly Med Chi publication, *Med Chi Physician*.

This new monthly newsletter will include time-sensitive reporting of legislative, regulatory, and reimbursement-related news that currently appears in the "Med Chi News" section of your *MMJ*. Plus, it will offer useful information to help you get the most out of your Med Chi membership, such as regular reporting on Med Chi committee activities, and an easy-to-read calendar of upcoming scheduled events, both at Med Chi and at your county and specialty societies.

Your *MMJ* will now focus on its strength: scientific and special interest medical writing. If there was any doubt about *MMJ*'s ability to stand out among scientific journals, it was resolved by the international attention garnered by Dr. Michael Benetiz's case report in the September 1996 issue, concluding that Edgar Allen Poe died of rabies, rather than "consumption" (*Md Med J* 1996;45:765-769). Likewise, *MMJ's* recent special issues on Maryland physicians in World War II (November 1995) and sports medicine (August 1996) have won praise.

Improvements in communications between Med Chi and you don't stop there. Now, your ability to get the latest information from Med Chi is easier on-line through our home page at www.**medchi.org**, and via e-mail at **info@medchi.org**. (The old address still works if anybody can type **medchi@access.digex.net** without flubbing it.)

Suddenly, our old society is interactive. And soon, the Med Chi library will complete installation of an on-line table of contents research service that will allow you to know in an instant whether any of the most widely used journals contain articles of importance to your practice. Separately, Med Chi is working with the American Medical Association and others to standardize the electronic platforms that comprise the medical electronic data systems for electronic claims processing and information management.

We look forward to your comments and contributions.

Sincerely,

Michael Preston

ACTING EXECUTIVE DIRECTOR ◆

Maryland Regulatory News

HRPC Health Planning and Strategy Committee

Joyce Yensen

Health Resources Planning Commission staff has provided recommendations to the Commission to address the problem of uninsured individuals and uncompensated care. The recommendations included Department of Health and Mental Hygiene (DHMH) and Health Services Cost and Review Commission (HSCRC) grants, hospital bond projects, and insurance vehicles. The committee met on October 15 and staff presented information on the impact that governmental actions authorizing or requiring the enrollment of Maryland Medical Assistance Program recipients into managed care organizations will have on community health centers and other primary care providers.

The study concluded that implementation of the Section 1115 waiver is a gain for the Medicaid recipients, although it may adversely affect some safety-net providers of care to uninsured individuals. According to the conclusions, a more comprehensive, long-term approach is needed to provide health care to low-income uninsured individuals, and state efforts to ensure the short-term survival of safety-net providers will allow time to develop more effective long-term solutions regarding uninsured individuals.

The Commission staff recommendations were (1) that DHMH provide technical assistance and grants to provide short-term assistance; (2) that HSCRC provide grants regarding uninsured individuals to reduce uncompensated care in hospitals; (3) for hospital bond projects to promote ambulatory care providers; and (4) to expand insurance and primary care financing models for low-income uninsured individuals.

Ms. Yensen is legal and policy affairs director of Med Chi. ◆

BPQA: ruling on non-physician saphenous vein harvesting being considered

Stephen H. Johnson

The Board of Physician Quality Assurance (BPQA) is considering whether to issue a declaratory ruling permitting the use of non-physicians to conduct saphenous vein harvesting during coronary artery by-pass graft (CABG) procedures. At its October 17, 1996 meeting, the BPQA's Practice of Medicine Committee (POMC) heard testimony from proponents of such a ruling, which has been requested by a Maryland hospital and a group of cardiovascular surgeons practicing at that hospital.

The parties requesting the ruling stated that a surgeon would be scrubbed and in the operating room with the individual performing the harvesting during the entire course of the procedure. They also provided the protocols for the training of individuals to perform saphenous vein harvesting, and indicated that it is envisioned that these individuals would be primarily from those trained as nurses, physician assistants, or surgical assistants.

Med Chi is studying this issue closely and asks members knowledgeable in this area to provide their comments. ◆

BPQA: licensure and renewal fee increase considered

Stephen H. Johnson

At its October 24, 1996 meeting, the BPQA considered whether to increase by 20% the fees charged to physicians for licensure and renewal . For example, the fee charged for the biennial license renewal would be increased to $480 from the current $400. J. Michael Compton, the BPQA executive director, told the board members that the BPQA needed to raise $1,000,000 to avoid facing a deficit. He also stated that an alternative to raising the fees would be to repeal the section of the Medical Practice Act that directs 20% of BPQA revenues to be distributed to the state General Fund and to the State Scholarship Administration, to be used to make grants under the Health Manpower Shortage Incentive Program and the Loan Assistance Repayment Program.

Dr. Azar, representing Med Chi, sent a letter to Suresh Gupta, M.D., BPQA chair, registering Med Chi's strong opposition to a increase in the fees, and encouraging the board to thoroughly consider all alternatives to a fee increase. Dr. Azar offered Med Chi's assistance to the BPQA . The Baltimore City Medical Society, the Baltimore County Medical Association, and the Montgomery County Medical Society sent similar letters.

After deliberation, the BPQA voted to defer action on the proposed increase until after members have had an opportunity to more thoroughly review information regarding the necessity for an increase. Med Chi will continue to monitor this issue closely, and oppose any increase in total charges to physicians.

Also at the October meeting, consideration of the proposed new regulations concerning physician advertising, previously covered in *Med Chi News*, was deferred until a later date.

Dr. Azar's letter concerning the proposed fee increase follows.

Mr. Johnson is director of Med Chi's Peer Review Program, and is Med Chi's liaison to the BPQA. ◆

October 23, 1996

Suresh C. Gupta, M.D., Chair
Board of Physician Quality Assurance
4201 Patterson Avenue
Baltimore, Maryland 21215-0095

Dear Dr. Gupta:

The Medical and Chirurgical Faculty of Maryland has noted the presence on the open agenda for the Board of Physician Quality Assurance meeting on October 23, 1996, of a proposal to modify COMAR 10.32.01.11 to provide for an increase in licensing and renewal fees in an amount described as 20% by the supporting memorandum.

Med Chi wishes to register its strong opposition to an increase in the licensing and renewal fees at this time, particularly of this size. Our opposition is based on three principal concerns.

First, an increase is contrary to the recent prevailing consensus, both state and national, regarding the appropriate direction of taxation. The fact that the fees in question are levied against one segment of the community does not make them any less of a tax. We are especially concerned because the BPQA is in the somewhat unique position of being able to set both its budget and the amount of revenue available to it, thus avoiding the checks and balances that usually act as a curb on spending.

Second, as with any tax, the proposed increase in fees will result in increased costs, not only to the party directly assessed, but also on the community at large, particularly consumers of health care. At a time when considerable effort is being focused on lowering the costs of health care it seems inappropriate to pursue an course of action that would have the reverse effect.

Finally, the justification made for the increase is that there has been "growth in the number of programs and staff and significant increases in costs and charges." There are many alternatives open to an agency facing such a challenge. An organization in the private sector would be compelled to analyze its position exhaustively before determining that an increase in consumer charges was its best course of action. We would strongly encourage the BPQA and those entities having oversight responsibility for it to undertake a similar analysis.

We stand ready to provide such assistance to the BPQA in considering this question as may be necessary. As the sole organization representing all the parties on whom this tax increase would be levied we plan to take a vigorous role in the discussion of this issue. Thank you for your consideration of our views.

Very truly yours,

Alex Azar, M.D.
President

cc: Board of Trustees ◆

FYI: Telephone scam involving calls to area code "809"

A recent telephone scam involves messages being placed on answering machines indicating that a family member is ill or that a prize has been won, or pages being sent to beepers. When the calls are returned or the pages answered to a phone number with an area code of "809," every effort is made to keep the caller on the line, thereby incurring additional fees, often more than $100. The area code "809" is outside the United States and foreign phone companies are receiving greatly inflated rebates for each call. These companies are not bound by United States "900" regulations requiring warnings of charges about to be incurred, and the provision of a time period during which a call may be terminated without charge. ◆

MIA: uniform consultation referral form issued

The Maryland Insurance Administration (MIA) has promulgated regulations prescribing a uniform consultation referral form to be used if a carrier requires its covered individuals to have a written referral in order to receive services. These regulations, which took effect October 21, 1996, are applicable to all carriers (including insurers, nonprofit health service plans, health maintenance organizations and dental plan organizations); consultant/facility providers (persons licensed under the Health Occupations Article of the Annotated Code of Maryland; or hospitals and related institutions that receive a written consultation referral); and primary or requesting providers (persons licensed under the Health Occupations Article of the Annotated Code of Maryland who refer patients for consultation to a consultant/facility provider).

The carriers may provide a separate set of instructions for the use of the health care provider regarding the carrier's specific managed care requirements; however, the carrier may not preprint "carrier information" on the uniform consultation referral form. The carrier may not modify the uniform consultation referral form, but may provide stamps or preprinted stickers to include additional information on the "carrier identification" block.

As of the effective date of the regulations, it appears that none of the carriers have printed forms with multiple colored pages. Until they are available from the carriers, photocopy the form provided on the following page and circle the appropriate recipient at the bottom of the form. ◆

Maryland Uniform Consultation Referral Form

Date of Referral:	Carrier Information:
Patient Information:	Name:
Name: (Last, First, MI)	Address:
Date of Birth: (MM/DD/YY) / Phone: ( )	
Member #:	Phone Number: ( )
Site #:	Facsimile/Data #: ( )

Primary or Requesting Provider:

Name: (Last, First, MI)	Specialty:	
Institution/Group Name:	Provider ID #: 1	Provider ID #: 2 (If Required)
Address : (Street #, City, State, Zip)		
Phone Number: ( )	Facsimile/Data Number: ( )	

Consultant/Facility Provider:

Name: (Last, First, MI)	Specialty:	
Institution/Group Name:	Provider ID #: 1	Provider ID #: 2 (If Required)
Address: (Street #, City, State, Zip)		
Phone Number: ( )	Facsimile/Data Number: ( )	

Referral Information:

Reason for Referral:

Brief History, Diagnosis, and Test Results:

Services Desired: Provide Care as Indicated:

- ☐ Initial Consultation Only
- ☐ Diagnostic Test: (specify)_____
- ☐ Consultation With Specific Procedures:(specify)_____
- ☐ Specific Treatment: _____
- ☐ Global OB Care & Delivery
- ☐ Other: (Explain)

Place of Service:

- ☐ Office
- ☐ Outpatient Medical/Surgical Center *
- ☐ Radiology ☐ Laboratory
- ☐ Inpatient Hospital *
- ☐ Extended Care Facility *
- ☐ Other: (Explain)

*(Specific Facility Must be Named.)

Number of Visits : _____. If Blank, 1 Visit is Assumed.	**Authorization #:** (If Required)	Referral is Valid Until: (Date)_____. (See Carrier Instructions)

Signature: (Individual Completing This Form	**Authorizing Signature:** (If Required)

Referral certification is not a guarantee of payment. Payment of benefits is subjected to a member's eligibility on the date that the services are rendered and to anyt other contractual provisions of the plan/carrer.

White: Carrier; Yellow: Primary of Requesting Provider; Pink: Consultant/Facility Provider; Goldenrod: Patient

See Carrier/Plan Manual for Specific Instructions.

DHMH: January launch for Medicaid managed care in doubt

Michael Preston

The Department of Health and Mental Hygiene's (DHMH) proposal to move nearly all Medicaid recipients into managed care organizations (MCOs) starting in January has met with concern among key legislators who feel that the implementation may need to be delayed to avoid turmoil. At press time, no decision had been made about the delay. Meanwhile, Med Chi and other interested parties have expressed frustration at the inability to obtain changes requested in the regulations to accommodate concerns.

In October, Senate Finance Health Care Subcommittee Chairman Larry Young indicated that he may advocate a 90- to 120-day delay in implementing the program, while DHMH Secretary Martin P. Wasserman, M.D. expressed the department's readiness to proceed. "We've met every deadline that we set for ourselves and are ready to move forward on January 1st and hope that others in the process will meet us there," said Dr. Wasserman at a conference in October.

Final approval of the regulations, and direction for the starting date, is in the hands of the General Assembly's Administrative, Executive and Legislative Review (AELR) Committee, which received testimony in October. There, Med Chi lobbyist Jay Schwartz stated that the regulations did not adequately account for concerns that Med Chi had raised about three key issues: assuring the ability of "historical providers" to be included on provider panels of Medicaid MCOs; creating a mechanism to prevent MCOs from assigning an overwhelming number of Medicaid patients to any one physician; and limiting the micromanagement of physician practices implicit in the regulations. (A copy of Med Chi's written presentation to the September 25th meeting of the Senate Finance Committee appears on page 978.)

Med Chi also presented written comments in a letter from AMA Executive Vice President, P. John Seward, M.D., expressing a wider perspective on perils of rushing the implementation of a Medicaid managed care program. Citing the experience of Tennessee and other states, Dr. Seward urged the importance of focusing upon the types of issues Med Chi raised about the Maryland program. (The text of Dr. Seward's letter appears on page 980.)

Mr. Preston is acting executive director at Med Chi. ◆

Members in the News

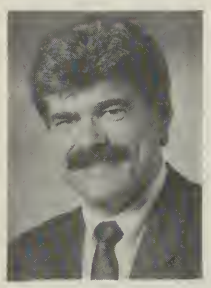


Bruce P. Berlanstein, M.D., has been named chief of the department of imaging at Church Hospital, a Helix Hospital, in Baltimore. A diagnostic radiologist, Dr. Berlanstein is a cum laude graduate of the State University of New York Medical School, where he was elected to Alpha Omega Alpha, the national medical honor society. He completed his residency in radiology at The Johns Hopkins and University of Maryland hospitals. In addition to his appointment at Church Hospital, Dr. Berlanstein is an attending radiologist and director of ultrasound at Franklin Square Hospital and an instructor in diagnostic radiology at The Johns Hopkins Hospital. Dr. Berlanstein serves on the board of the Maryland Institute of Ultrasound and is a member of the American College of Radiology, the Radiological Society of North America, and the Baltimore County Medical Society.



Rose Mary Hatem Bonsack, M.D., has been elected to the board of directors of the American Academy of Family Physicians (AAFP). The AAFP is the national medical association representing more than 83,000 family physicians, family practice residents in training, and medical students. Dr. Bonsack, a family physician from Aberdeen, Maryland, is a delegate in the Maryland House of Delegates, and is in limited private family practice. Dr. Bonsack has served as a delegate to the AAFP congress of delegates and is a past president of the Maryland Academy of Family Physicians. She is a member of the AAFP's Commission on Legislation and Governmental Affairs, and has served as chair of the AAFP Chapter Affairs Committee, and of the Harford County Medical Society. She is a graduate of Washington College in Chestertown, Maryland. She received her medical training from the University of Maryland Medical School in Baltimore, and graduated from the Medical College of Pennsylvania.

Ira E. Hantman, M.D., has been named to the board of directors of the Jewish Convalescent and Nursing Home in Pikesville. A Pikesville resident, Dr. Hantman is a partner in Drs. Silber & Hantman, P.A., a urology practice in Baltimore. Dr. Hantman is certified by the National Board of Medical Examiners and the American Board of Urology. He is a member of the Baltimore City Medical Society, the Medical and Chirurgical Faculty of Maryland, the America Urological Association and the Maryland Urological Association. The Jewish Convalescent and Nursing Home, a 151-bed facility, is the only Kosher, skilled, not-for-profit nursing home in Baltimore County.



J. Leonard Lichtenfeld, M.D., has been reelected American Society of Internal Medicine (ASIM) Secretary-Treasurer. Dr. Lichtenfeld is chief medical officer and vice president for physician development at the Cornerstone Physicians corporation of Irvine, California. Before joining Cornerstone in 1996, he practiced internal medicine and oncology in Baltimore for 19 years. First elected to the ASIM Board of Trustees in 1990, Dr. Lichtenfeld has been ASIM's secretary-treasurer since 1993. He is also on the board of trustees and serves as secretary-treasurer of IMCARE. A physician payment expert, Dr. Lichtenfeld is currently an active member of the AMA's Relative Value System Update Committee. A past president of the Maryland Society of Internal Medicine, Dr. Lichtenfeld is currently on the board of trustees of Med Chi, and is a past chair of Med Chi's legislative committee. Dr. Lichtenfeld received his undergraduate degree from the University of Pennsylvania and his medical degree from Hahnemann Medical College in Philadelphia. He was board certified in internal medicine and medical oncology in 1977.



J. Richard Lilly, M.D., immediate past president of Med Chi, has been elected by Blue Cross and Blue Shield of Maryland to serve a three-year term on the company's board of directors. Dr. Lilly received his medical degree from Temple University School of Medicine in Philadelphia, and completed an internship at Church Hospital in Baltimore. He has been in private practice since 1966 and was a founding partner of the Doctors Community Hospital in Lanham, Maryland. Dr. Lilly was recently selected to represent Maryland by the American Medical Association and the American Hospital Association in their publication, *America's Most Positive Physicians.* He is a diplomate and charter fellow of the American Academy of Family Practice and past president of the American Academy of Family Practice and the Prince George's County Medical Society. In addition, Dr. Lilly is the recipient of a 1995 Governor's Citation recognizing him as "one of Maryland's most respected and admired members of the medical profession." Currently, Dr. Lilly has a private family medicine practice in Hyattsville, Maryland.

Two members of Med Chi's Committee on Medicine and the Performing Arts participated in the Fourteenth Annual Symposium on Medical Problems of Musicians and Dancers, held in

Aspen, Colorado, July 18-21, 1996. **Leo M. Rozmaryn, M.D.,** gave a presentation entitled, "Developing an Outcome Instrument for Upper Extremities in Performing Artists." **Richard Norris, M.D.,** spoke on "A Comprehensive Approach to Myofascial Left Upper Quarter Pain in the Violinist and Violist." Dr. Norris also led a workshop, along with string instructor Paul Kantor, for the students and faculty of the Aspen Music School. The symposium was sponsored by the Performing Arts Medicine Association and the International Association for Dance Medicine and Science, in conjunction with the Aspen Music Festival and School and Dance Aspen. Over 150 health and arts professionals from all over the United States, as well several foreign countries, attended the symposium. Drs. Rozmaryn and Norris are members of the Montgomery County Medical Society. ◆

News from the Alliance

Spouse in the House

The face of medicine as we know it has changed dramatically in the past three years, and is not only affecting the physician, but everyone who receives health care. It has challenged not only the physician's ability to provide complete health care to the patient, but stresses the medical marriage as well. It is now more important than ever that we, as spouses, become informed about the medical issues affecting physicians' practices and the future of medicine.

The Alliance will adopt a new program this year to offer each component spouse member an opportunity to become educated about the legislative process and issues that affect the future of medicine. The new project, "Spouse in the House," will be observed weekly during the legislative session in Annapolis. Arrangements have been made for a specific number of Alliance members to attend a weekly briefing of pending bills and pertinent information. An update will be given to county legislative chairs and presidents so the counties will receive an ongoing stream of material, giving them special insight into legislative proceedings. Our thanks go to George Malouf, Sr., M.D., who presented the idea and name of "Spouse in the House," and to Michael Preston, Med Chi's Acting Executive Director for expediting the arrangements.

The "Spouse in the House" program will begin as an educational process every Friday during the legislative session. Each Alliance component is encouraged to send one or more representatives to learn about the medical issues that legislators considered during the week. The meetings will take place at the Med Chi office on Main Street in Annapolis. Space will be limited; therefore, it is necessary to contact Joann Troisi in the Alliance office.

Every component is encouraged to take an active role in this educational process, and to learn how legislation is influenced by other factions that affect the practice of medicine and the future of health care for everyone.

Physician's Day

Physician's Day is a primary event on the Alliance calendar. This year, the Alliance will be working in cooperation with Med Chi, the Maryland Medical Political Action Committee (MMPAC), and Med Chi's component and specialty societies. We will meet with our physicians, legislators, and lobbyists on February 5, 1997 at the Med Chi Building in Annapolis, where we will become better acquainted with the medical aims of legislation and exchange views and information. This day has become an annual part of our Alliance schedule and gives us and the participants a greater understanding of our mutual goals. ◆

Addendum

This testimony is referenced on page 975.

Presentation to Senate Finance Committee Subcommittee on Health

Concerning Maryland Medicaid Managed Care Program Draft Regulations

on behalf of
The Medical & Chirurgical Faculty of Maryland
by Michael Preston, General Counsel

Annapolis, Maryland ◆ September 25, 1996

The Medical & Chirurgical Faculty of Maryland, representing nearly seven thousand physicians in the state is pleased to offer the following comments the Senate Finance Committee, Subcommittee on Health, concerning draft regulations for the Maryland Medicaid Managed Care Program. Med Chi previously has expressed comments to DHMH regarding a number of issues in the draft regulations which it regards to be of central importance. Copies of Med Chi's prior written comments are attached for reference.

In general, most of the key concerns expressed in Med Chi's written comments dated September 3, 1996 are not addressed in the draft regulations dated September 16, 1996. Med Chi has focused its attention on the subjects of adequacy of reimbursement generally, and upon five specific issues: definition of medical necessity, capacity of the MCO's provider networks (ratio of provider to enrollees), mandates and micromanagement, historic providers, and emergency services access. The priority items that we believe are in need of legislative intervention are as follows:

- adequacy of reimbursement,
- ratio of providers to enrollees and assuring equitable distribution of enrollees,
- mandates and micromanagement,
- qualification of historic providers.

Adequacy of reimbursement. Senate Bill 750 included as one of the Medicaid Managed Care Program goals that it should "[s]eek to provide adequate levels of reimbursement for providers to encourage greater participation in the program." H.G. 15-102.1(b)(8). There is no provision in the regulations for the Department to supervise or otherwise intervene in the issue of the adequacy or level of reimbursement running from MCO to the providers. Med Chi's concern is that reimbursement will be, or will become, inadequate, particularly if overall funding dwindles. Accordingly, we have urged the Department, as part of its ongoing analysis of the true cost and benefit of this program, to require the MCOs in their applications, e.g. as part of 64.03(O), not only to recite their intended levels of reimbursement to providers, but also to demonstrate that such levels are appropriate. In addition, the MCO's levels of reimbursement should be part of the Department's assessment of the adequacy of its network.

Ratio of providers to enrollees; assuring equitable distribution. Senate Bill 750 requires HMOs that require their physicians to participate in MCOs to provide a mechanism to assure equitable distribution of enrollees and assures that providers will not be assigned a disproportionate number of enrollees. H.G. 15-102.5. The regulations call for a target ratio of providers to enrollees of 1:200, although an MCO can seek to demonstrate that a higher ratio of up to 1:2000 is appropriate. While a ratio of one physician to 200 Medicaid patients in an IPA model MCO, in itself, may not be unreasonable, our concern is that a practitioner who is already serving a substantial number of Medicaid patients should not be inundated with new patients, espe-

cially when the HMO-MCO requires that Medicaid patients be accepted along with its commercial patients. Therefore, we have urged the Department to include a provision under which a practitioner can obtain relief from assignment of a disproportionate number of Medicaid patients by allowing the practitioner who has a ratio of at least 1:200 Medicaid patients, from whatever referring source, to close his or her panel to new Medicaid patients from any MCO. Importantly, such a provision must contain a requirement that an MCO cannot exact any penalty or reprisal against such a provider for closing his or her panel.

Mandates and Micromanagement. The regulations contain details of practice administration that verge upon micro-management, and that promise to involve providers and MCOs alike in sanctionable conduct and regulatory entanglements. We count at least 35 separate regulations which impose mandates upon MCOs to perform particular acts, either in connection with actual medical practice or in connection with office management, all of which will be performed, in reality, by the physician's office. For example, MCO is obliged to schedule initial appointment of Medicaid patients within certain specific times for different categories of patient: normal 90 days, pregnant 10 days, family planning 10 days; it is obliged to follow appointment guidelines setting specific times within which appointment must occur after patient request; and specific time limits are set for waiting room (1 hour), responding to phone call (10 minutes), inquiry about ER use (30 minutes).

All of these functions will actually be undertaken by the provider, not some insurance bureaucracy, and they will be paid for out of capitation. The level of detail in the regulations concerning such items is unreasonable and inappropriate. Instead, we strongly urge amendment of the regulations so that such matters as scheduling and response times must occur within a reasonable time under circumstances.

Qualification to be an historic provider. The regulations' provisions setting qualifications for historic providers are unduly restrictive in that they link an historic provider's "demonstrated history" of service to a dollar amount of reimbursement. The term, "demonstrated history of providing service" is statutory language from Senate Bill 750 which is not defined in the law. The volume of patients served by a provider should not determine whether the provider has a demonstrated history; for remote location or other circumstances may have limited numbers of providers who were ready, willing and able to serve. Any dollar amount qualification, e.g. $25,000, is arbitrary, and, we submit, should be omitted.

We urge that the regulations provide that for purposes of qualifying as an historical provider, a health care provider shall be considered to have a demonstrated history of service to Medicaid recipients if such provider participated in the Maryland Access to Care (MAC) program, or was willing and available to accept Medicaid program participants for a period of at least one year prior to June 30, 1995, regardless of the number of program participants actually served by such provider. ◆

Addendum

This letter is referenced on page 975.

October 18, 1996

The Honorable John A. Pica, Jr., Chairman
Administrative, Executive and
Legislative Review Committee
402 A James Senate Office Building
110 College Avenue
Annapolis, Maryland 21401-1991

The Honorable Larry Young, Chairman
Senate Finance Health Subcommittee
306 James Senate Office Building
110 College Avenue
Annapolis, Maryland 21401-1991

The Honorable John S. Arnick, House Chairman
Joint Committee on Administrative, Executive
and Legislative Review
426 Lowe House Office Building
6 Gov. Bladen Boulevard
Annapolis, Maryland 21401-1991

Dear Senator Pica, Senator Young and Delegate Arnick:

On behalf of the American Medical Association, I would like to offer our comments on Maryland's draft Medicaid 1115 Waiver implementation regulations. This information is being provided at the request of Senator Young who solicited AMA comments at a hearing before his health subcommittee on October 8, 1996.

The AMA supports innovative approaches to the financing and delivery of medical services under Medicaid. We are concerned, however, that recent Section 1115 waivers in some states have had mixed results in promoting the Medicaid Act's objective of improving access to quality medical care and may lead to the erosion of fundamental patient protections embodied in the Medicaid Act.

Some states have implemented under-funded and poorly designed Medicaid programs, or shifted Medicaid populations into managed care delivery systems too quickly. As exemplified in Tennessee's Medicaid program, TennCare, the result is that beneficiaries' access to quality medical care suffers. Similarly, unreasonably low capitation rates paid to managed care organizations or by managed care organizations to providers create disincentives to plan or provider participation in the Medicaid program, which ultimately affects access.

Implementation is a key factor in the success or failure of demonstration waivers. Phasing in managed care programs too rapidly can result in problems with enrollment, provider or network capacity, inadequate funding and insufficient time to educate beneficiaries about the new delivery system and to develop appropriate systems to monitor the demonstration project.

TennCare provides an example of the chaos that can result from a rushed transition to managed care. Because of a budget crisis in the state, Tennessee was determined to implement TennCare quickly. During the implementation phase, confusion abounded because neither patients nor physicians were given sufficient time to make informed decisions about their participation in TennCare. When TennCare took effect, the confusion turned to chaos. Patients were denied access to hospitals and transferred back and forth between institutions. At least one death was reported.

Managed care organizations' listings of participating providers included the names of physicians who were deceased, who had moved to other states many years earlier, and who had left practice. As a result, physicians and their staffs were required to spend many hours assuring their patients that they would have access to routine health care services and specialty care. Physicians and hospitals also have been forced to subsidize patient care because the bills for services that they provided to TennCare patients have gone unpaid for many months.

Since its inception, the TennCare program has been beset by rampant patient confusion, inadequate funding, untimely payment of providers and poor quality of care. Many of these problems might have been avoided if the state had: 1) allowed time for meaningful consideration of comments and input from interested and affected parties and 2) phased implementation of managed care to ensure the availability of an adequate, sufficiently capitalized managed care infrastructure and an orderly transition for beneficiaries and providers.

TennCare is not the only demonstration waiver that has suffered from implementation problems. A General Accounting Office report entitled States Turn to Managed Care to Improve Access and Control Costs surveyed Medicaid offices in the 50 states and the District of Columbia and concluded that: "State Medicaid officials and other experts stressed that taking time to plan and implement a program, acquire staff expertise, and develop a base of support with the community served are important. Implementing a program slowly allows time to create an organizational structure; develop administrative expertise; properly educate staff, providers and beneficiaries; establish adequate rate-setting and reimbursement mechanisms; and put in place quality assurance and oversight and monitoring mechanisms." According to state officials, even Arizona, whose AHCCCS program is

widely recognized as an example of a successful Medicaid managed care delivery system, experienced major problems when it first implemented its program, primarily because it was implemented too fast.

Our evaluation of the Section 1115 waivers in place around the nation has allowed us to identify a number of criteria that we believe have special relevance and importance to Medicaid beneficiaries, and that should be used by states in implementing Medicaid managed care. Enclosed is a copy of the report containing those criteria. We urge you and the Department of Health & Mental Hygiene to give them careful consideration as you work to finalize the Medicaid regulations.

We also would like to offer the following specific comments for your consideration:

Capacity of Provider Network

This section of the regulations addresses the adequacy of an MCO's provider network by determining its capacity to serve waiver-eligible recipients in each local access area. The regulations suggest that an MCO may be able to assign as many as 2,000 adult enrollees per physician, and still demonstrate that its provider network is adequate. The AMA is concerned that MCOs may interpret this regulation in such a way that they prohibit their participating physicians from limiting the number of waiver-eligible patients they see in their practice.

If physicians cannot limit the number of waiver-eligible patients they see in a program that offers below-cost reimbursement levels, they may be faced with the choice of participating and potentially bankrupting their practices or not participating at all. Furthermore, a 2,000 to 1 patient to physician ratio may significantly undermine the quality of patient care. Assignment of a disproportionate number of Medicaid patients to a physician could have the effect of inducing the physician to reduce or limit medically necessary services provided with respect to an individual patient.

Reimbursement

Medicaid provider reimbursement levels have historically been considerably below private sector and Medicare levels; this creates a disincentive for providers to participate in Medicaid, which ultimately impacts on beneficiaries' access to quality medical care. The regulations contain no provisions requiring the state to oversee the level of reimbursement from MCOs to providers.

At the very least, MCOs should be required to publish or make available upon request to physicians the following information: payment policies, including, but not limited to payment rates, use of payment modifiers, coding rules, bundling rules, global surgical policies and the methodologies used in developing these payment policies; payment schedules and fee schedules; and utilization review criteria, including the screening criteria, weighting elements and computer algorithms utilized in the review process and their method of development. In addition, if there is utilization data by procedure for the relevant population, MCOs should be required to make it available to physicians.

Making this type of information available will assist physicians in deciding whether an MCO's reimbursement levels are sufficient for the physician to provide quality medical care to patients. Furthermore, even under a managed care system in which MCOs pay providers, the state maintains a legal duty to assure adequate payment levels. The state should consider the actuarial soundness of payment rates from MCOs to participating providers.

Historic Providers

The AMA is pleased that the regulations recognize the importance of creating mechanisms for traditional Medicaid providers, who have been serving this population for decades, to continue to participate in Medicaid managed care. These providers typically include minority and international medical graduate physicians, community health centers and public hospitals. Ignoring these resources can result in the disruption of the continuity of patient care.

We are, however, concerned about the arbitrary and prohibitively high thresholds used in defining an historic provider. The current definition may exclude the vast majority of physicians who are presently serving Medicaid patients. We urge you and the Department to take into consideration variations in practice, specialty, and geographic location which may impact the actual number of Medicaid patients seen or the dollar amount of a physician's Medicaid revenues.

Conclusion

We appreciate the opportunity to provide comments on the proposed regulations and urge your consideration of our views. We hope that the Department and the State of Maryland will learn from the lessons of other states and take the necessary time to implement a well-designed program that assures access to quality medical care for its beneficiaries. If we can provide any additional information or assistance to you or the Department, please feel free to contact us.

Sincerely,

P. John Seward, M.D.
Executive Vice President, American Medical Association
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Med Chi

FAX Back Survey

410·539·6427

An Invitation to Comment Upon, and Participate in

Med Chi's Legislative Agenda

December 1996

The success or failure of Med Chi's legislative program depends upon the quality and volume of input from our members regarding our initiatives, which are described in the Legislative Prospectus on page 984. Your willingness to testify in Annapolis, or otherwise support any of our initiatives, will dramatically improve the prospects for success. Please indicate below whether you would be interested in helping in one of the ways shown, or give your written comments on any or all of the initiatives. Feel free to attach additional pages.

Your Name _____ Your County _____

Phone No. (___) _____ Fax No. (___) _____

	Will Testify	Will Write Delegate	Will Call Delegate	Other (Comment)
Med Chi Initiatives				
1. Elimination of "Silent PPO Clauses"	❑	❑	❑	❑
2. Utilization & Reimbursement Review Reform, Medical Director Liability	❑	❑	❑	❑
3. Prepaid Prescription Plans	❑	❑	❑	❑
4. Insurance Company Filing Deadlines	❑	❑	❑	❑
5. Six-month Limit on Insurance Takeback	❑	❑	❑	❑
6. Managed Care Bonuses Based on Profit	❑	❑	❑	❑
7. Blue Cross/Blue Shield For-Profit Issue	❑	❑	❑	❑
8. Post-Injury X-Rays	❑	❑	❑	❑
9. ER Treatment by Out-of-Network M.D.	❑	❑	❑	❑
10. Medical Savings Accounts	❑	❑	❑	❑
11. BPQA Subpoenas	❑	❑	❑	❑
12. HCACC Data Base & Payment System	❑	❑	❑	❑
Initiatives Expected From Others				
Please list those of interest to you				
_____	❑	❑	❑	❑
_____	❑	❑	❑	❑
_____	❑	❑	❑	❑

Comments

_____

_____

_____

Dear Fellow Med Chi Member,

Med Chi's House of Delegates has served a full plate of legislative initiatives for 1997, and the rest of the health care world will undoubtedly do the same. Your medical society, thanks to the hard work of the legislative committee and our lobbyist, Jay Schwartz, Esq., now finds itself at the forefront of health care issues coming before the Maryland General Assembly.

Med Chi now enjoys credibility and stature among our legislators in Annapolis, and that means this year Maryland physicians will have an active and significant say in how discussions about health care concerns are structured, and an effective influence on how the legislature responds to these issues.

We are all deeply indebted to Mr. Schwartz and his staff, Mike Preston and his staff, and to our legislative committee members. They have devoted enormous time and effort to laying the groundwork for what is going to be a highly successful and productive session in Annapolis for Maryland's physicians and their patients.

But we must remember, Med Chi's ability to be effective in Annapolis also depends upon each of us. Our phone calls and letters, and above all, our personal contacts with legislators, are of paramount importance and influence. Our individual communications really count!

Sincerely,
William F. Bruther, M.D.
Chair, Council on Legislation

Med Chi legislative staff

- Jay Schwartz, Esq., Med Chi Lobbyist
  Baltimore 410-244-7000; Annapolis 410-269-1618
- Geraldine Valentino, Med Chi Lobbyist
  Baltimore 410-332-4505; Annapolis 410-269-5443
- Gail Grandy, Legislative Director
  Baltimore 800-492-1056; Annapolis 410-263-4035
- Joyce Yensen, Legal and Policy Affairs Director
  800-492-1056; FAX 410-547-0915

Mark your calendar

Physician's Day in Annapolis will be held on **February 5, 1997**. This annual event is an opportunity for Med Chi's physicians to meet with Maryland's legislators and become better acquainted with the medical aims of legislation and exchange views and information. For more information about Physician's Day in Annapolis please contact Gail Grandy at Med Chi 410-539-0872 or 800-492-1056.

Legislative Section

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1997 Legislative Prospectus

MICHAEL PRESTON, *Acting Executive Director*

The 1997 legislative session promises to offer no relief in the frequency or complexity of measures that affect physicians. Last session, the Maryland General Assembly considered 2,299 separate bills, and Med Chi tracked more than ten percent of these as having potential impact on the medical profession. While many issues will arise unexpectedly next year and require a response, Med Chi's own initiatives appear below, along with several items that are expected to be offered by others.

Med Chi Legislative Initiatives

▼ ***Elimination of "Silent PPO Clauses."*** Many health insurers are assigning their discounted fee schedules to liability insurers and others, such as Optimum Choice's deal with GEICO, whereby the physician is expected to accept a discounted fee from a party with whom the physician has not agreed to a discount. (Med Chi House of Delegates (HOD) Resolution 20-96)

Prospects: Strong opposition from the insurance industry and Chamber of Commerce is likely; will need a lot of Med Chi member involvement.

▼ ***Utilization & Reimbursement Review Reform, Medical Directors' Liability.*** This measure would require that utilization review be based upon sound scientific principles, that denials of coverage based on medical appropriateness be based on consultation with a physician of the same specialty/sub-specialty as the treating physician, that written reasons for denial be given, that retroactive denials of preauthorized care be prohibited, and that the Board of Physician Quality Assurance (BPQA) receive authority to discipline medical directors who implement or enforce treatment protocols that contravene generally accepted standards of care. (Med Chi HOD Resolution 21-96)

Prospects: Medical director liability measure promoted by BPQA last year failed; parts of this measure may be included in HB 1374 task force measure, see below. Firm opposition from insurance industry expected; active support from Med Chi members will be needed.

▼ ***Prepaid Prescription Plans.*** Measure would require that managed care organizations of prepaid prescription plans first obtain prescribing physician's approval before substituting another drug, that pharmacies in such plans renew a prescription presented by a patient within one week of expected renewal date, and physician be notified if patient fails to renew. (Med Chi HOD Resolution 22-96)

Prospects: A possibility exists that this may be worked out with the Board of Pharmacy without legislation, see report on Pharmacy Act Rewrite below.

▼ ***Insurance Company Filing Deadlines.*** This would require that insurers that use any carrier-imposed deadline for filing claims, reset deadlines when carriers contend claim is "dirty," that is, needs more information or was not received, and that appeal procedures be developed for physicians whose claims are denied as untimely. (Med Chi HOD Resolution 23-96)

Prospects: Elements of measure may be addressed administratively or by HB 1374 task force, see below.

▼ ***Six-month Limit on Retraction of Insurance Payments.*** This would establish a six-month limit, in the absence of fraud, on the insurance carrier's ability to withdraw or retract payments made to physicians. (Med Chi HOD Resolution 24-96)

Prospects: Firm opposition from insurers expected. Active Med Chi membership support needed, including a lot of examples of unfairness and hardship, comparing carrier's usual six-month time limit to submit claims with their three- to seven-year limit on payment retractions.

▼ ***Managed Care Bonuses Based on Profit.*** Measure would require managed care organizations, in their promotional and marketing materials, to publish a statement contain-

ing the amount of compensation and bonuses paid to executives and officers, and the proportion of their revenues spent on medical services. (Med Chi HOD Resolution 27-96)

Prospects: Firm opposition from HMOs expected. Measure is consistent with "consumer-oriented" disclosure measures promoted by Senator Bromwell, see below.

▼ ***Blue Cross/Blue Shield of Maryland.*** It is expected that Maryland Blue Cross/Blue Shield will again seek authority to acquire a for-profit status, to which Med Chi remains opposed. In the event such an effort gains currency in this year's session, this measure would require that any State permission to take for-profit status be conditioned upon payment by Blue Cross/Blue Shield to the state or a charitable foundation, an amount equal to 100 percent of the fair market value of the assets of Blue Cross/Blue Shield of Maryland. The measure would further prohibit any existing officers, directors, or employees of the organization, or their families, from receiving stock options or other financial benefits in connection with conversion to for-profit status. (Med Chi HOD Resolution 28-96)

Prospects: This measure should garner a lot of support from within and without the government, and Blue Cross/Blue Shield may even avoid bringing the proposal due to pre-session work on this issue by Med Chi and others.

▼ ***Post Injury X-Rays.*** This measure would allow orthopedists to take appropriate and timely x-rays in their offices during the global follow-up period instead of sending the patient to a remote location for the x-ray. (Med Chi HOD Resolution 29-96)

Prospects: Measure will be opposed strongly by HMOs and will probably face tough going because HMOs will contend it goes to the heart of managed care operations. Support of measure must be based upon reality of patient inconvenience and risk of harm.

▼ ***ER Treatment By Out-of-Network Physicians.*** Measure would allow HMO patients seen at an emergency room to continue follow-up care with an out-of-network physician during global treatment period, with no surcharge to patient. (Med Chi HOD Resolution 30-96)

Prospects: Also likely to face tough going with vehement HMO opposition.

▼ ***Medical Savings Accounts.*** Expression of support for development of state-level medical savings accounts, and for Maryland's inclusion in pilot project enacted by federal law. (Med Chi HOD Resolution 32-96)

▼ ***BPQA Subpoenas of Hospital QA Records.*** Measure would prohibit BPQA from obtaining by subpoena entire QA file on a physician from hospital medical staff, except when privileges are acted upon locally. (Med Chi HOD Resolution 33-96)

Prospects: This measure is expected to meet resistance from BPQA, which will assert that it is a limitation upon its investigatory powers. However, the reason for the measure is that often such powers are exercised in the manner of "fishing expeditions," quite unrelated to the matter which first occasioned the BPQA inquiry.

▼ ***HCACC Data Collection and Payment System.*** Med Chi will continue to aggressively advocate for patient confidentiality in connection with the Health Care Access & Cost Commission database. Concerning the HCACC uniform health care payment system, Med Chi's Board of Trustees has voted to act to abolish the current system.

Prospects: While Med Chi's concerns about confidentiality have been scorned by the *cognoscenti* of health care policy, along with the Chamber of Commerce and others, some of the same detractors join Med Chi in its opposition to the current payment system. Anything's possible on this one.

▼ ***BPQA: Physician Assistant Medication Orders.*** Med Chi opposed BPQA regulations issued in August that would have authorized physician assistant (PA) telephone screening activity, as well as authorized PAs to write medication orders in certain settings. The BPQA and Med Chi agreed to present the measure in the form of legislation, rather than regulations.

Prospects: The challenge will be fending off amendments that would further expand PA scope of practice to include actual prescribing authority.

Initiatives Expected From Others

- ***HB 1374 Task Force HMO Appeals Process.*** A bill is likely to emerge from a task force created by last session's HB 1374, a Med Chi–HMO joint measure, to develop substantially changed appeals procedures for physicians and patients seeking redress for HMO coverage and utilization decisions. At press time, no task force consensus or bill exists, but it is working toward a "one stop shopping" approach that would replace the roles currently played, often ineffectively and contradictorily, by the Insurance Administration and the Department of Health and Mental Hygiene's (DHMH) office of Licensing & Certification.

  Prospects: If the task force reaches consensus, its recommendations will carry weight because its members include several legislators knowledgeable about health care policy.

- ***BPQA: Telemedicine.*** The Board of Physician Quality Assurance has asked DHMH to present a bill that would create a new category of limited medical license allow ing physicians located in other states to conduct practice via electronic media, on an infrequent basis, on patients located in Maryland, under circumstances where the physician works in conjunction with another physician located in the state.

  Prospects: The limited license proposal was highly controversial at the American Medical Association level. No Med Chi committee or council had expressed a position at press time.

- ***Senator Thomas Bromwell's Capitation Disclosure Measure.*** Having jurisdiction over most health care policy, Chairman of the Senate Finance Committee, Senator Bromwell (D. Baltimore County) published articles during the summer expressing his intention to serve up a bill that would require HMOs to disclose to their subscribers the nature of capitation payment systems, including their incentives for avoiding treatment.

  Prospects: Some HMO interests have intentionally offended the senator about his idea, and he *is* the Chairman. Prospects for this one are good.

- ***Board of Pharmacy: Pharmacy Act Rewrite.*** The Board of Pharmacy will seek to implement a major rewrite of the law governing pharmacists, the draft version of which contains some very controversial proposals, including the authorization of pharmacists to administer injections and provide care for wounds, and elevating their responsibility for challenging the appropriateness of prescriptions.

  Prospects: The drug makers, distributors, and health professionals are likely to have problems with major parts of the proposed rewrite. The Board and pharmacists have expressed a desire to work out differences prior to the session.

The legislative process

GAIL GRANDY, Legislative Director

The Maryland General Assembly, the state legislature, is in regular session for 90 days each year. The legislative session begins in January and ends in April, in accordance with the Maryland Constitution. The General Assembly is divided into two chambers: the Maryland State Senate and the Maryland House of Delegates. Only senators and delegates may introduce bills into the General Assembly. Bills are drafted for members of the Maryland General Assembly by the Department of Legislative Reference. Bills may be introduced shortly before the start of a legislative session (and are called prefiled bills), or they may be introduced during the legislative session under rules and guidelines that become more restrictive as the session progresses (see "Dates of Interest," page 992). Senate and House bills are assigned their numbers by the Secretary of the Senate and the Chief Clerk of the House, respectively.

First Reading. When the daily sessions convene, the reading clerks of the Senate and the House of Delegates read the number and title of each bill, and the name of the standing committee to which the bill has been referred by the presid-

ing officer. This version of a bill is called a first reader and printed on the first page is the name of the primary sponsor, the co-sponsors, if any, the bill's introduction date, and the standing committee to which the bill has been referred.

There are currently four standing committees in the Senate and six standing committees in the House that consider legislation. In the Senate they are the Budget and Taxation, Economic and Environmental Affairs, Finance and Judicial Proceedings committees. In the House they are the Appropriations, Commerce and Government Matters, Economic Matters, Environmental Matters, Judiciary and Ways and Means committees. At public hearings held by these committees witnesses may provide oral testimony or submit copies of written testimony or both. Oral testimony may be aided by notes, but witnesses should not read written testimony. Written testimony should be submitted in the quantity specified by the committee in the General Assembly's weekly hearing schedule. This quantity is at least sufficient for the members of the committee and the committee staff. Witnesses may also check with the committee staff, but should not wait until the hearing date.

A standing committee may amend a bill. The committee may vote on a bill and generally reports a bill to the floor (the full chamber) with a favorable, favorable with amendments or unfavorable recommendation. A favorable or favorable with amendments report allows the bill to move to second reading.

Second Reading. On second reading a bill is open to amendment by the members of the full chamber. A roll call vote may be taken to record the chamber's decision to adopt or reject a floor amendment.

Third Reading. Any floor amendments that were adopted on second reading are included in a reprinted version of the bill called a third reader. A third reader may be identified by the word "Chapter," followed by a blank line on the first page of the bill. This space would be for the bill's public law number should this be the final version of the bill and should the bill be signed into law by the Governor.

No amendments may be offered on third reading in the chamber of origin. The members vote yea if they wish to pass a bill on third reading (pass a bill from the chamber) or nay to allow a bill to fail on third reading. Roll call votes are taken on third reading.

The Opposite Chamber. When a bill crosses over to the opposite chamber it retains the name of its chamber of origin and its number (for example, Senate Bill 50 would still be called Senate Bill 50 if it crosses over to the House). The progress of a bill through the opposite chamber would follow the same pattern as in the chamber of origin except that a bill may be amended on third reading in the opposite chamber, in addition to being open to amendment on second reading.

If the opposite chamber passes a bill without amending it, the third reader from the chamber of origin is the final version of the bill. If there are opposite chamber amendments, the bill is sent back to the chamber of origin where a vote is taken on whether to concur with or reject the opposite chamber amendments. This is called a concurrence vote. If the opposite chamber amendments are accepted, a second third reading vote is taken in the chamber of origin on the bill as amended. If the bill passes this third reading vote (which is usually the case under such circumstances) the bill is reprinted to include the opposite chamber amendments in what is called an enrolled version of the bill. An enrolled bill may be identified by a series of lines for a date and for signatures (should the Governor sign the bill) on the first page of the bill. These are in addition to the space for a chapter number.

If the opposite chamber amendments are rejected the opposite chamber may either withdraw the amendments or request that a conference committee be appointed to find a solution to the differences over the bill. A conference committee consists of three members from each chamber appointed by the presiding officers. A conference committee exists for only as long as is necessary to work out the differences over a bill. The final form that a bill should take according to the conference committee is called a conference committee report. Both chambers must vote on whether or not to adopt the conference committee report and are not allowed to offer amendments to the report. If the report is adopted both chambers must pass the bill on a second third reading vote or the bill fails. If the bill passes, it is reprinted and also called an enrolled bill.

Presentation of Bills to the Governor. All bills, except proposed constitutional amendments and the Budget Bill, must be presented to the Governor within twenty days after the adjournment of a legislative session. The Governor may sign or veto a bill. If the Governor does neither, the bill will become law without the Governor's signature.

If the Governor vetoes a bill while the General Assembly is in a regular legislative session, the General Assembly votes on whether or not to override the Governor's veto. If a bill is vetoed after adjournment, the General Assembly must vote on whether or not to override the veto during the next regular or special session unless the legislature is in the first year of a new term. Three-fifths of the full membership of each chamber must vote to override a veto or the veto is sustained.

Wrap-up of 1996 legislative session — not just stadiums!

JOSEPH A. (JAY) SCHWARTZ, III, ESQ., Med Chi lobbyist

The 1996 Maryland General Assembly adjourned at midnight Monday, April 8 after having considered 2,299 separate bills. The Med Chi Legislative Committee met nearly every Monday night during the session, and reviewed all health care legislation in detail.

Maryland remained in the national forefront of legislative reform directed at the growing HMO industry. Due to the agreement between Med Chi and the Maryland Association of HMOs, which was endorsed in January by the Med Chi House of Delegates, the two organizations supported certain joint initiatives, all of which became law. The following were among the most noteworthy.

House Bill 1374 (Delegate Barve, et al) and Senate Bill 624 (Senators Astle, Dorman and Madden) were companion bills regulating, in several significant ways, HMO's relationships with doctors:

- **Gag rules** in HMO-physician contracts are illegal as of October 1 (fourth state in the nation to do so).
- **Indemnification clauses** requiring physicians to indemnify HMOs for the HMO's acts, or coverage decisions are illegal as of October 1 (first state in the nation). HMOs will disclose to physicians the criteria used to make panel selection decisions, and also provide **physician specific practice profiles in certain circumstances** (one of the first states in the nation).
- **Withholds** are abolished in all payment systems (first state in the nation).
- A **legislative task force** including three Med Chi-appointed representatives has been convened to address improvements in the patient/doctor grievance and appeal procedures. Draft legislation to implement the task force recommendations is in the process and will include creation of a single venue for both patient and physician appeals to avoid the finger-pointing and ineffectiveness that marks the current process at the Department of Health and Mental Hygiene (DHMH) and the Maryland Insurance Administration (MIA).

House Bill 1207 (Delegate Hammnen) and Senate Bill 728 (Senator Della) passed, requiring the Secretary of the DHMH to create a **system for single primary source verification for physicians** to be operated by private entities qualified by DHMH. The legislation specifically references Med Chi. The legislation also permits DHMH to give "deemed status" to NCQA (a national accrediting body) that reviews HMOs.

House Bill 1142 (Delegate Bonsack) and Senate Bill 738 (Senator Teitelbaum) were Med Chi-supported initiatives to create a **remediation track** within the State Board of Physician Quality Assurance (BPQA). This bill would allow BPQA physicians to enter into a nonpublic agreement for remedial action, as opposed to discipline. Such remedial action would not be considered discipline and, it would not be reportable to credentialing entities such as HMOs, hospitals, or the National Practitioner Data Bank. However, BPQA's bill (House Bill 797), a major rewriting of the BPQA law opposed in part by Med Chi, was given an unfavorable report by the House Environmental Matters Committee.

The Mothers and Infants 48-hour Bill was also approved with the decision to stay or not to stay in the hospital to be that of the mother, after consultation with the physician. Med Chi had supported the physician as the decision-maker, consistent with the model bill of the American Academy of Pediatrics. However, the legislature decided to give the final decision to the mother, but did provide that any physician would be protected from an insurer or hospital if they sought a longer stay because of a particular clinical situation.

Emergency room doctors were successful with the passage of House Bill 859 (Delegate Love). The legislation clarified existing provisions of the law concerning emergency room payment, and also provided that emergency room physicians would be paid a "screening fee" by HMOs for required screenings under federal law. However, the screening fee will only be paid through April 1, 1997, at which time the legislature will revisit the issue.

Medicaid moved front and center in the concluding days of the session as House Bill 105/Senate Bill 750 sought to provide the framework for the Secretary of the DHMH to move the Medicaid population into Managed Care Organizations (MCOs). A Med Chi amendment ensured that a "historic provider" would be guaranteed a position on a Medicaid MCO if the "historic provider" had a "demonstrated history of serving Medicaid recipients." Med Chi also successfully argued for the inclusion of protections given to physicians in the Patient Access Act last year to be required of all Medicaid MCOs.

Med Chi was also successful, along with other provider groups, in securing a language to prohibit the competitive

bidding of the Medicaid population with the possible result that doctors would no longer be able to serve their patients if their new HMO was not the winning bidder. Finally, a Med Chi amendment in the last day of Conference Committee deliberations was accepted to regulate the number of Medicaid patients that might be assigned to a doctor without his or her consent.

The main legislative proposal of the Maryland Hospital Association was **Community Health Networks** (House Bill 1065, Delegate Hurson and Senate Bill 519, Senator Dorman). These bills created a new category of regulated health networks which would be able to compete with HMOs in direct contracting with employer groups for health insurance. Senate Bill 519 passed the senate in a version which would have allowed hospital networks, but not physician networks, and was subsequently given an unfavorable report by the House Economic Matters Committee.

The 1995 study of the **Funk Commission** resulted in the introduction of House Bill 264/Senate Bill 216 by the Governor. These bills were entitled the "Automobile Insurance Rate Reduction Act of 1996" and were designed to reduce automobile insurance rates, particularly in high claims regions like Baltimore City. However, there were several onerous provisions including separate fee schedules for "soft tissue" injuries, as well as separate practice parameters to be developed. These provisions were successfully opposed by Med Chi and in the end the only provisions of the bills which passed were anti-fraud measures designed to crack down on lawyers and health care providers who were engaged in unethical activity. Med Chi had always supported these provisions of the bill.

Mandated benefits bills were filed to require coverage of outpatient rehabilitative services (House Bill 60), treatment for autism (House Bill 358/Senate Bill 315), diabetes equipment, supplies and training (House Bill 227/Senate Bill 49), osteoporosis prevention and treatment (House Bill 192), prostate specific antigen tests (Senate Bill 497), nicotine patches (House Bill 518) and reconstructive breast surgery (House Bill 119/Senate Bill 181). **Only the reconstructive breast surgery bills passed** (i.e., cosmetic reconstruction of other breast after mastectomy), and the other bills were studied over the summer by the House Economic Matters Committee. Med Chi's position on all mandates is that they should be studied in a comprehensive fashion rather than on an item by item basis, as many of these mandated benefits are laudable and will be cost effective. However, the present system for considering different mandates in different bills is ultimately counterproductive.

Here is a snapshot of other issues:

- Senate Bill 607 to relax the restraints for the award of **punitive damages** in products liability lawsuits (including medical products such as heart valves) was opposed by Med Chi and received an unfavorable report. This bill, promoted by asbestos plaintiffs' lawyer Peter Angelos, principal owner of the *Baltimore Orioles*, even received an unfavorable editorial from the *Wall Street Journal.*
- House Bill 836 to eliminate the **contributory negligence** defense in all actions including medical malpractice was opposed by Med Chi and received an unfavorable report.
- Senate Bill 532 to allow **nurse psychotherapists** to independently prescribe medications passed the Senate by a narrow margin, but failed in the House of Delegates.
- **Bills to regulate HCACC data collection** were unsuccessful but promise to return in 1997. Med Chi and AMA's position of supporting **patient consent** prior to the release of confidential medical information resulted in a 22 to 23 losing vote on the floor of the Senate of Maryland. The Environmental Matters Committee killed the companion bill sponsored by Delegate James Kelly and 19 other delegates. **However, it appears that this will be a major issue in 1997.**
- Senate Bill 701 and House Bill 1070 to allow Maryland Blue Cross and Blue Shield to change provider rates without prior approval of the Insurance Commissioner passed after the Insurance Commissioner supported the proposal. Blue Cross will not be treated the same as the other insurers in the state.
- Senate Bill 392 (Senator Trotter) and House Bill 863 (Delegate Goldwater) to allow HMO patients to see **"in network" OB-GYNs** without first securing the referral of the primary care gatekeeper was approved.
- The **Governor's Gun Control Legislation,** which was supported by Med Chi, and which limits handgun sales to one per month, passed. This is similar to the law passed last year in Virginia.
- Med Chi supported legislation to limit **tobacco vending machines**; it passed the House of Delegates but was not considered by the Senate prior to adjournment.
- House Bill 891, which required HMOs to provide employers with specific forms to be given to their employees concerning their right to choose a **point of service option** under last year's Patient Access Act, passed on the final day.

From Idea to Law

BERNADETTE H. LANE, CAE
Executive Director, Baltimore City Medical Society

Novices to the Annapolis scene often feel as though they have followed Alice through the looking glass. The legislative process is so complex that it often defies explanation, but at the same time, it is so open that almost any idea has a chance to become law. Maryland has a bicameral legislature that meets for 90 days out of every year, beginning with the second Wednesday in January. And, while almost any idea can become a bill, to become a law, a bill must be introduced by a member of the Maryland General Assembly, passed by both the House of Delegates and the Senate, and signed by the Governor, a long and perilous trip. To understand the process, we need to start with the idea.

Legislative ideas come from many sources. A citizen thinks there should be a law prohibiting widget manufacturing on Sundays, so he calls his legislator and tells him. The legislator agrees and drafts a bill.

Another source of bills is the state bureaucracy. A state agency such as the Board of Physician Quality Assurance determines that there is a need for additional legislation to carry out or expand its function. The agency submits the idea to the legislative division within its department and, if the idea is approved, it becomes a part of the Administrations' legislative package.

Special interest groups such as hospitals, physicians, nurses, the SmokeFree Maryland Coalition, Marylanders Against Handgun Abuse, museums, unions, and highway contractors, are a major source of legislative ideas. The Med Chi House of Delegates has been a fertile source of proposals for possible legislative action, as indicated in the "1997 Legislative Prospectus" printed in this issue. This list is in the hands of Mr. Joseph (Jay) Schwartz and the Med Chi legislative action team to find interested legislators to sponsor the necessary bills.

Finally, of course, the members of the legislature themselves identify problems in their own districts, or in the state, and craft legislative solutions. For example, Delegate Marilyn Goldwater recently presented a proposal she has been working on for the past year to the Maryland Health Care Provider Coalition. She believes that the citizens of Maryland would be best served by combining the Health Care Access and Cost Commission, the Health Resources Planning Commission, and the Health Services Cost Review Commission into one public utility-type commission.

Regardless of the source of the idea, once a bill is in rough draft, the sponsoring legislator begins working for its passage. The first step is to get other legislators to become sponsors; this may even occur before the bill is drafted. There are usually two sides to an issue; so, once it is known that a bill is being proposed, opposing forces try to keep legislators from signing on to the bill. All of this is done outside the regular sessions of the legislature, long before the bill is introduced. Actually, most ideas die at this stage, probably with good reason. However, each year, between 2,000 and 2,500 ideas each year get beyond this stage and are introduced as bills.

The Maryland legislature operates on a committee system. Most House bills affecting the medical practice go to the Environmental Matters Committee, but some may be referred to Economic Matters. The Economic and Environmental Affairs Committee and the Finance Committee get most health care bills in the Senate. Tort reform bills go to Judiciary in the House, and Judicial Proceedings in the Senate.

If a bill is introduced by the fourteenth day of the session, it is guaranteed a committee hearing. Most bills receive a hearing which is the main opportunity for proponents and opponents to explain their positions and to suggest amendments. Effective lobbying not only involves participation in hearings, but individual conversations between lobbyists and legislators, and between constituents and legislators. While lobbying is often perceived as influence peddling, most lobbying is actually legislator education. Since members of the legislature cannot be experts on the thousands of subjects on which they vote, the real job of a lobbyist is to inform.

Following a hearing, complex and controversial bills are often referred to a subcommittee for review and consideration of testimony. Subcommittee members become the committee's experts on the issues assigned to them. They work on the bill developing amendments, frequently meeting with opposing sides to talk about what language might be acceptable to both. During the 1996 legislative session, the Health and Public Utilities Subcommittee of the Environmental Matters Committee, chaired by Delegate Brian McHale, spent dozens of hours on the Medicaid Waiver bill, even meeting on Saturdays and Sundays.

Amendments can strengthen a bill, weaken it, or as with the Medicaid Waiver bill last year, completely re-write it. Delegate Rose Mary Bonsack, M.D., recently advised the members of the Med Chi Legislative Committee to be vigilant about amendments which "can be put on a bill so rapidly that it is easy to lose track and the whole meaning of a bill can be changed before you know it." An example is House Bill 1359 enacted three years ago, which began as a relatively innocuous piece of insurance reform legislation. However, after all of the amendments were attached, it changed Maryland's entire health care delivery system.

Sometimes the subcommittee decides that the bill should not go any further and recommends that the bill be killed. The subcommittee recommendation is almost always followed, and once a bill is given an *unfavorable report*, that is, voted down

by a full committee, it is usually dead for that session. A legislator can move to have such a bill brought to the floor for a vote by the full body, but that is very rarely done. In order to bring an issue to the floor over the objection of a committee, a legislator has to defy the leadership. The leadership, Speaker of the House or President of the Senate and the committee chairpersons, are the ones who make committee appointments and give other rewards to legislators. It is very hard for a legislator to defy the leadership on whom future committee assignment and the success of "pet" bills may rest.

If the subcommittee finds the bill has merit it may make recommendations for amendments to the full committee. The issues are then debated and amendments may be adopted or rejected, and the committee may approve or reject the bill. If the bill is given a *favorable or favorable with amendments report,* that is approved by the committee, it can continue the legislative process. See "The Legislative Process," also in this issue.

Sometimes, to speed the process on important issues, the same bill is introduced in both houses at the same time so that the respective House and Senate committees can do their work simultaneously. Such bills are called companion bills or cross bills. Each companion bill may go all the way through the hearing process, the subcommittee process, the amendments, the committee votes, and votes by the full body. The goal is to get a bill worded exactly the same way through both houses. This is seldom achieved, particularly on complex issues. Most often each house passes its own version of a bill, and a conference committee may be appointed in each chamber. A conference committee usually includes the lead sponsors of the bill in each house, and a person suggested by the chairmen of the committees that acted upon the bill. The members of conference committees are appointed by the Speaker of the House and the President of the Senate. The conference committee's task is to find compromises on the conflicting issues in the bill. Once agreement is reached, the revised bill is presented to each house for a final vote, frequently in the final hours of the legislature. Should the group fail to reach agreement before midnight on the last day of the session, the bill dies for that session.

Every bill enacted has one final hurdle — it must be signed by the Governor in order to become law. The Governor may sign or veto the bill. Most bills signed by the Governor take effect on July 1 or October 1. However, when stipulated in the legislation, emergency bills will take effect as soon as signed by the Governor, and some bills will be implemented over a period of time. The last line in a bill usually states when it will take effect. If vetoed, the bill is placed on the agenda for the next session of the legislature which can override the veto by a 3/5 vote, not something easily done. It is more likely that a new bill, changed in some way to address the concerns expressed in the Governor's veto message, will be introduced.

Given this system, it is amazing that any bill is ever enacted, and that may be good. While often bills which we would like to see pass fail to negotiate the many pitfalls in the system, so do many that would be detrimental. Even with all the possible places where a bill can be killed or die, each year 500 to 800 ideas actually become laws. And, in many cases, once a bill is signed another process may begin: the promulgation of regulations, an exercise equally as convoluted as the legislative process.

Planning is the Key to Passing a Bill

by Senator Delores Kelley, Ph.D.

The most essential thing needed to get a bill passed is to develop and implement a strategic plan with the following components:

1. Research on history of the particular issue, including any previous legislative initiatives to improve an untenable situation;
2. Pre-session assessment of the inherent proponents and opponents of the proposed legislative initiative;
3. Solicitation of credible and committed coalition-partners, both within the General Assembly and throughout the external committee;
4. Pre-session or early session negotiation and clarification sessions with those likely opponents whose legitimate concerns must be addressed;
5. Solicitation of pre-session support from State or local executive-branch agencies charged with oversight for implementing the proposed legislation, if passed;
6. Organization of balanced panels of technical experts to offer support at bill hearings;
7. Organization of lay-citizen support for testimony at bill hearings;
8. Conduct hearings/focus groups in general community and among especially impacted groups prior to session to raise consciousness and to build support;
9. Make speeches before audiences who are either at-risk under the status quo or who are likely to be significantly affected by passage of the proposed legislation;
10. Seek co-sponsors who are well respected among their peers, and if possible, who sit on the particular standing committees to which given bills are likely to be assigned.
11. Lobby selected individual members of the assigned standing committee, usually after the bill hearing and prior to the committee vote;
12. Expeditiously seek and share A.G. opinions or letters of advice in response to members raising of any constitutional questions (e.g., due-process); and
13. Trade support in order to gain necessary votes, except where matters of principle are involved.

Dates of Interest

January 8 ..... General assembly convenes (noon, Wednesday).

TBA ..... Governor delivers the State of the State Address.

January 15 ..... Final date for Governor to introduce Budget Bill.

TBA ..... Chief Judge delivers the State of the Judiciary Address.

January 17 ..... Final date for submission of executive orders reorganizing the executive branch of state government. (Either chamber may disapprove by resolution within 50 days. Administration bills introduced in the Senate after this date are referred to the Senate Rules Committee.)

January 21 ..... Senate bill and House bill request guarantee date.

January 27 ..... Final date for Governor to introduce capital budget bill.

January 31 ..... Senate and House bill introduction date. (Senate bills introduced after this date are referred to the Senate Rules Committee.) House bill introduction courtesy date.

February 5 ..... **Physician's Day: call Med Chi for details.**

February 16 ..... "Green Bag" appointments submitted by Governor—delivered on February 14.

February 21 ..... House bills introduced after this date are referred to the House Rules Committee.

March 3 ..... Final date for introduction of bills without suspension of rules.

March 18 ..... Committee reporting courtesy date. (Each chamber's committees should report out its own bills by this date.)

March 24 ..... Opposite chamber bill crossover date. (Each chamber should send to the other chamber those bills it intends to pass favorably. Opposite chamber bills received after this date are subject to referral to the rules committee.) Senate Rule 32 (c), House Courtesy Date.

March 31 ..... Budget bill to be passed by both chambers by this date.

April 7 ..... Adjournment "Sine die."

May 7 ..... Final date for an extended session.

POST-SESSION

April 27 ..... Final date for presentment of bills to the governor.

May 27 ..... Governor to sign/veto bills by this date.

June 1 ..... Other than emergency bills, earliest date for bills to take effect.

July 1 ..... Budget, tax, and revenue bills to take effect.

October 1 ..... Usual effective date for bills.

Important telephone numbers

- Legislative information and library ..... ext. 3810
- Information desk, State House ..... ext. 3886
- President of the Senate ..... ext. 3700
  Thomas V. 'Mike' Miller, Jr.
- Senate majority leader ..... ext. 3697
  Clarence W. Blount
- Senate minority leader
  vacancy
- Senate Budget and Taxation Committee ..... ext. 3690
- Senate Economic and Environmental Affairs Committee ..... ext. 3661
- Senate Finance Committee ..... ext. 3677
- Senate Judicial Proceedings Committee ..... ext. 3623
- Speaker of the House of Delegates ..... ext. 3800
  Casper R. Taylor, Jr.
- House majority leader ..... ext. 3464
  John Adams Hurson
- House minority leader ..... ext. 3401
  Robert H. Kittleman
- House Committee on Appropriations ..... ext. 3407
- House Committee on Economic Matters ..... ext. 3519
- House Committee on Environmental Matters ..... ext. 3534
- House Judiciary Committee ..... ext. 3488
- House Committee on Ways and Means ..... ext. 3469
- Copies of bills by mail ..... ext. 3810

1997 Maryland General Assembly, by Legislative District

LEGISLATIVE DISTRICT 1
Garrett and Allegany counties
Sen. John J. Hafer
Del. George C. Edwards (1A)
Del. Betty Workman (1B)
Del. Casper Taylor, Jr. (1C)

LEGISLATIVE DISTRICT 2
Washington County
Sen. Donald F. Munson
Del. Robert A. McKee (2A)
Del. D. Bruce Poole (2B)
Del. John P. Donoghue (2C)

LEGISLATIVE DISTRICT 3
Washington and Frederick counties
Sen. John W. Derr
Del. Sue Hecht
Del. Louise V. Snodgrass
Del. J. Anita Stup

LEGISLATIVE DISTRICT 4
Frederick and Carroll counties
Sen. Timothy R. Ferguson
Del. David R. Brinkley (4A)
Del. Paul S. Stull (4A)
Del. Donald B. Elliott (4B)

LEGISLATIVE DISTRICT 5
Carroll County
Sen. Larry E. Haines
Del. Ellen L. Willis
Del. Joseph M. Getty
Del. Nancy R. Stocksdale

LEGISLATIVE DISTRICT 6
Baltimore and Harford counties
Sen. Michael J. Collins
Del. Diane DeCarlo
Del. Kenneth Holt
Del. Michael H. Weir

LEGISLATIVE DISTRICT 7
Baltimore County
Sen. Norman R. Stone, Jr.
Del. John S. Arnick
Del. Joseph Minnick
Del. Jacob J. Mohorovic, Jr.

LEGISLATIVE DISTRICT 8
Baltimore County and Baltimore City
Sen. Thomas L. Bromwell
Del. Katherine Klausmeier
Del. James F. Ports, Jr.
Del. Alfred W. Redmer, Jr.

LEGISLATIVE DISTRICT 9
Baltimore County
Sen. F. Vernon Boozer
Del. A. Wade Kach (9A)
Del. Martha S. Klima (9A)
Del. James M. Kelly (9B)

LEGISLATIVE DISTRICT 10
Baltimore County and Baltimore City
Sen. Delores G. Kelley
Del. Emmett C. Burns, Jr.
Del. Shirley Nathan-Pulliam
Del. Joan N. Parker

LEGISLATIVE DISTRICT 11
Baltimore County
Sen. Paula C. Hollinger
Del. Michael J. Finifter
Del. Robert L. Frank
Del. Dan K. Morhaim

LEGISLATIVE DISTRICT 12
Baltimore and Howard counties
Sen. Edward J. Kasemeyer
Del. James E. Malone, Jr. (12A)
Del. Donald E. Murphy (12 A)
Del. Elizabeth Bobo (12 B)

LEGISLATIVE DISTRICT 13
Howard and Prince George's counties
Sen. Martin G. Madden
Del. Shane Pendergrass (13A)
Del. Frank S. Turner (13A)
Del. John S. Morgan (13B)

LEGISLATIVE DISTRICT 14
Montgomery and Howard counties
Sen. Christopher J. McCabe
Del. Patricia Anne Faulkner (14A)
Del. Robert L. Flanagan (14B)
Del. Robert H. Kittleman (14B)

LEGISLATIVE DISTRICT 15
Montgomery County
Sen. Jean W. Roesser
Del. Jean Cryor
Del. Richard LaVay
Del. Mark K. Shriver

LEGISLATIVE DISTRICT 16
Montgomery County
Sen. Brian E. Frosh
Del. Gilbert J. Genn
Del. Marilyn Goldwater
Del. Nancy K. Kopp

LEGISLATIVE DISTRICT 17
Montgomery County
Sen. Jennie Forehand
Del. Kumar Barve
Del. Michael R. Gordon
Del. Cheryl C. Kagan

LEGISLATIVE DISTRICT 18
Montgomery County
Sen. Christopher Van Hollen, Jr.
Del. Leon G. Billings
Del. Sharon Grosfeld
Del. John Adams Hurson

Calling your representatives in Annapolis is a local call from the Baltimore and Washington areas. To find out the extension of your senator or delegate, from the Baltimore area, dial 841-3810; from the Washington area, dial 858-3810; outside the Baltimore/Washington areas, dial 800-492-7122.

LEGISLATIVE DISTRICT 19
Montgomery County
Sen. Leonard H. Teitelbaum
Del. Henry B. Heller
Del. Adriene A. Mandel
Del. Carol Stoker Petzold

LEGISLATIVE DISTRICT 20
Montgomery County
Sen. Ida G. Ruben
Del. Dana Lee Dembrow
Del. Peter Franchot
Del. Sheila Ellis Hixson

LEGISLATIVE DISTRICT 21
Prince George's County
Sen. Arthur Dorman
Del. Barbara Frush
Del. Pauline H. Menes
Del. James C. Rosapepe

LEGISLATIVE DISTRICT 22
Prince George's County
Sen. Paul G. Pinsky
Del. Anne Healey (22A)
Del. Richard A. Palumbo (22A)
Del. Rushern L. Baker, III (22B)

LEGISLATIVE DISTRICT 23
Prince George's County
Sen. Leo E. Green
Del. Mary A. Conroy
Del. James W. Hubbard
Del. Joan B. Pitkin

LEGISLATIVE DISTRICT 24
Prince George's County
Sen. Decatur W. Trotter
Del. Joanne C. Benson
Del. Nathaniel Exum
Del. Carolyn J.B. Howard

LEGISLATIVE DISTRICT 25
Prince George's County
Sen. Ulysses Currie
Del. Michael A. Crumlin
Del. Dereck Davis
Del. Brenda B. Hughes

LEGISLATIVE DISTRICT 26
Prince George's County
Sen. Gloria Gary Lawlah
Del. C. Anthony Muse
Del. Obie Patterson
Del. David M. Valderrama

LEGISLATIVE DISTRICT 27
Prince George's, Calvert, and Anne Arundel counties
Sen. Thomas V. 'Mike' Miller, Jr.
Del. James E. Proctor, Jr. (27A)
Del. Joseph F. Vallario, Jr. (27A)
Del. George W. Owings, III (27B)

LEGISLATIVE DISTRICT 28
Charles County
Sen. Thomas McLain Middleton
Del. Thomas E. Hutchins
Del. Samuel C. Linton
Del. Van T. Mitchell

LEGISLATIVE DISTRICT 29
Calvert and St. Mary's counties
Sen. Roy Dyson
Del. John F. Wood, Jr. (29A)
Del. John Frank Slade, III (29B)
Del. Anthony J. O'Donnell

LEGISLATIVE DISTRICT 30
Anne Arundel County
Sen. John C. Astle
Del. Phillip D. Bissett
Del. Michael Erin Busch
Del. Virginia P. Clagett

LEGISLATIVE DISTRICT 31
Anne Arundel County
Sen. Philip C. Jimeno
Del. Joan Cadden
Del. John R. Leopold
Del. Victoria L. Schade

LEGISLATIVE DISTRICT 32
Anne Arundel County
Sen. C. Edward Middlebrooks
Del. Michael W. Burns
Del. Mary Ann Love
Del. James E. Rzepkowski

LEGISLATIVE DISTRICT 33
Anne Arundel County
Sen. John A. Cade
Del. Robert C. Baldwin
Del. Janet Greenip
Del. Marsha G. Perry

LEGISLATIVE DISTRICT 34
Harford County
Sen. David R. Craig
Del. Rose Mary Hatem Bonsack
Del. Nancy Jacobs
Del. Mary Louise Preis

LEGISLATIVE DISTRICT 35
Harford and Cecil counties
Sen. William H. Amoss
Del. Donald C. Fry (35A)
Del. James M. Harkins (35A)
Del. David D. Rudolph (35B)

LEGISLATIVE DISTRICT 36
Kent, Queen Anne's, Cecil, Caroline, and Talbot counties
Sen. Walter M. Baker
Del. Wheeler R. Baker
Del. Ronald A. Guns
Del. Mary Roe Walkup

LEGISLATIVE DISTRICT 37
Dorchester, Caroline, Talbot, and Wicomico counties
Sen. Richard Colburn
Del. Don B. Hughes (37A)
Del. Adelaid C. Ekardt (37B)
Del. Kenneth D. Schisler (37B)

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MEMBERS BY LEGISLATIVE DISTRICT

LEGISLATIVE DISTRICT 38
Somerset, Worcester, and Wicomico counties
Sen. J. Lowell Stoltzfus
Del. K. Bennett Bozman
Del. Norman H. Conway
Del. Charles A. McClenahan

LEGISLATIVE DISTRICT 39
Montgomery County
Sen. Patrick J. Hogan
Del. Raymond Beck
Del. Barrie S. Ciliberti
Del. Mathew Mossburg

LEGISLATIVE DISTRICT 40
Baltimore City
Sen. Ralph M. Hughes
Del. Tony E. Fulton
Del. Salima Siler Marriott
Del. Howard P. Rawlings

LEGISLATIVE DISTRICT 41
Baltimore City and Baltimore County
Sen. Clarence W. Blount
Del. Frank D. Boston, Jr.
Del. Margaret H. Murphy
Del. Nathaniel T. Oaks

LEGISLATIVE DISTRICT 42
Baltimore City
Sen. Barbara A. Hoffman
Del. James W. Campbell
Del. Maggie McIntosh
Del. Samuel I. Rosenberg

LEGISLATIVE DISTRICT 43
Baltimore City
Sen. John A. Pica, Jr.
Del. Gerald J. Curran
Del. Ann Marie Doory
Del. Kenneth Charles Montague, Jr.

LEGISLATIVE DISTRICT 44
Baltimore City
Sen. Larry Young
Del. Carmina Watson
Del. Ruth M. Kirk
Del. Clarence M. Mitchell, IV

LEGISLATIVE DISTRICT 45
Baltimore City
Sen. Nathaniel McFadden
Del. Talmadge Branch
Del. Clarence Davis
Del. Hattie N. Harrison

LEGISLATIVE DISTRICT 46
Baltimore City and Baltimore County
Sen. Perry Sfikas
Del. Cornell N. Dypski
Del. Peter A. Hammen
Del. Carolyn J. Krysiak

LEGISLATIVE DISTRICT 47
Baltimore City and Baltimore County
Sen. George W. Della, Jr.
Del. Brian K. McHale (47A)
Del. Timothy D. Murphy (47A)
Del. Thomas E. Dewberry (47B)

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Maryland congressional legislators

During 1997, legislation that affects health care will be considered at the federal level, as well as in the Maryland General Assembly. Below are the names, addresses, committee appointments, and phone and fax numbers of Maryland senators and representatives.

▼ **Senator Paul S. Sarbanes** (D)
309 Hart Senate Office Building
United States Senate
Washington, DC 20510
Phone: 202-224-4524
Fax: 202-224-1651
District: 410-962-4436
Committees: Banking, Housing, and Urban Affairs; Budget; Foreign Relations; Joint Economic (vice chairperson)

▼ **Senator Barbara A. Mikulski** (D)
709 Hart Senate Office Building
United States Senate
Washington, DC 20510
Phone: 202-224-4654
Fax: 202-224-8858
District: 410-962-4510
Committees: Appropriations; Labor and Human Resources; Select Ethics

▼ **Representative Wayne Gilchrest** (R-1st)
332 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-5311
Fax: 202-225-0254
District: 410-778-9407
Committees: Resources; Transportation and Infrastructure

▼ **Representative Robert L. Ehrlich, Jr.** (R-2nd)
315 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-3061
Fax: 202-225-3094
District: 410-337-7222
Committees: Banking; Government Reform and Oversight

▼ **Representative Benjamin L. Cardin** (D-3rd)
104 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-4016
Fax: 202-225-9219
District: 410-433-8886
Committees: Standards of Official Conduct (Ethics); Ways and Means

▼ **Representative Albert Wynn** (D-4th)
418 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-8699
Fax: 202-225-8714
District: 301-773-4094
Committees: International Relations; Banking and Financial Services

▼ **Representative Steny H. Hoyer** (D-5th)
1705 Longworth House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-4131
Fax: 202-225-4300
District: 301-464-6440
Committees: Appropriations; House Administration

▼ **Representative Roscoe Bartlett** (R-6th)
322 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-2721
Fax: 202-225-2193
District: 301-694-3030
Committees: Armed Services; Science, Space, and Technology; Small Business

▼ **Representative Elijah E. Cummings** (D-7th)
2419 Rayburn House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-4741
Fax: 202-225-3178
District: 410-367-1900
Committees: Transportation and Infrastructure; Government Reform and Oversight

▼ **Representative Constance A. Morella** (R-8th)
106 Cannon House Office Building
United States House of Representatives
Washington, DC 20515
Phone: 202-225-5341
Fax: 202-225-1389
District: 301-424-3501
Committees: Science; Government Reform and Oversight

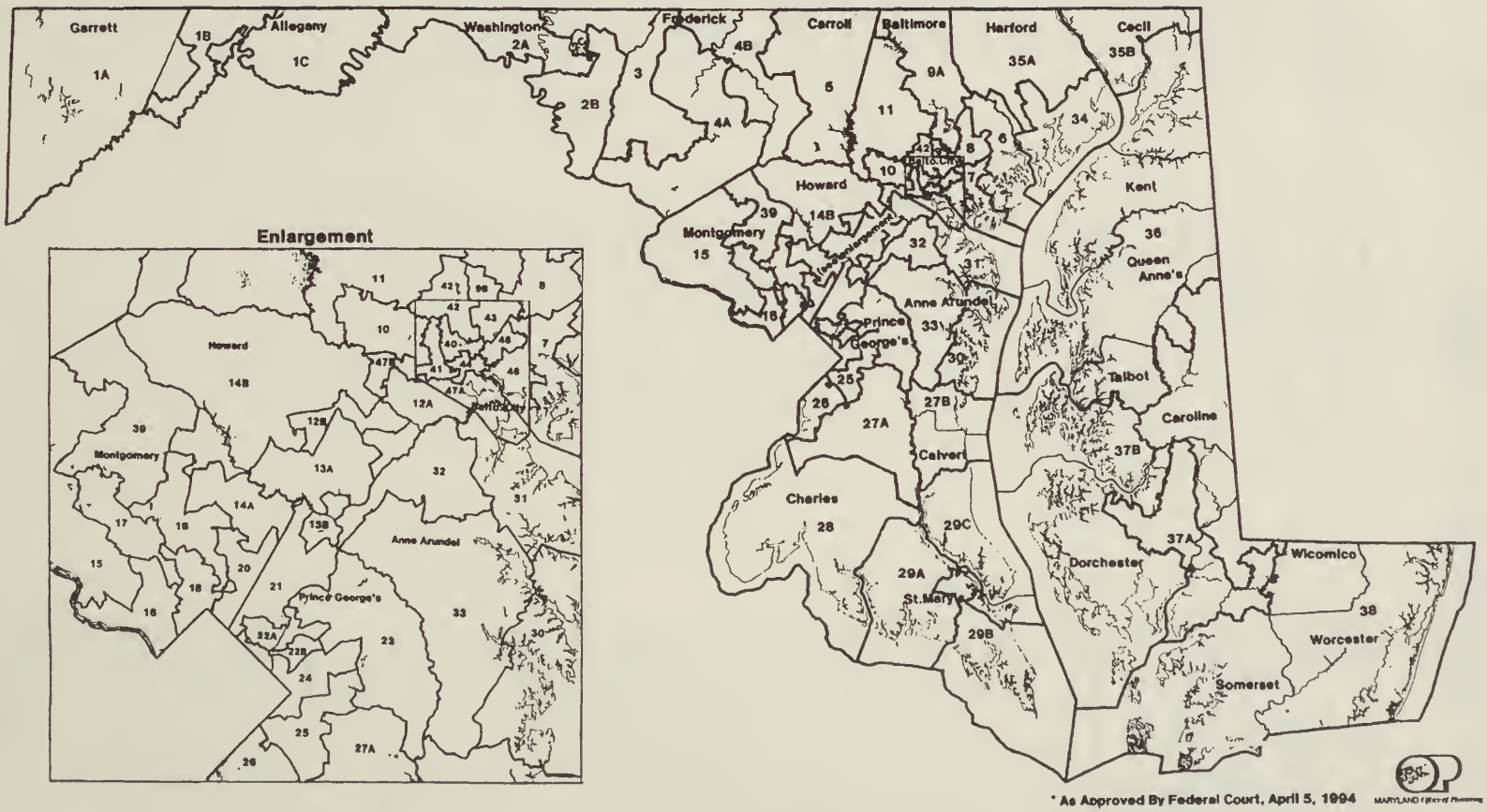
Legislative district maps

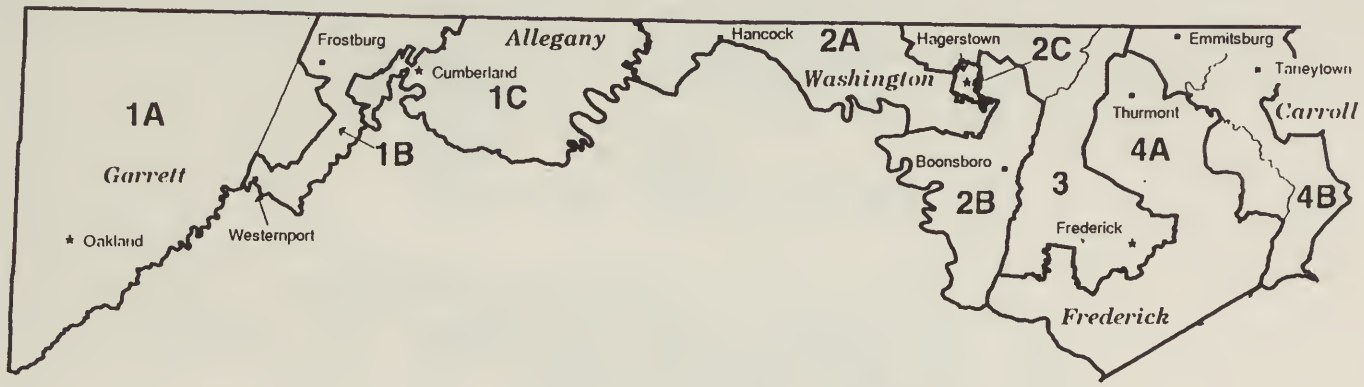
The following pages are legislative district maps. Maryland has 47 legislative districts, each represented by one state senator and three delegates in the Maryland General Assembly. Some districts are further divided into subdistricts, represented by one or two delegates.

Following the legislative district maps is a map of Maryland's eight congressional districts. Med Chi members may wish to find out who represents them in the Maryland General Assembly or who represents their congressional district in the United States House of Representatives and express their views concerning state or federal legislation, respectively. Members may also wish to contact Maryland's two United States senators regarding federal legislation. Members may find out which legislative or congressional district they live in by calling the appropriate county board of elections telephone number listed below.

- Allegany 301-777-5931
- Anne Arundel 410-222-6600
- Baltimore City 410-396-5550
- Baltimore County 410-887-5700
- Calvert 410-535-2214
- Caroline 410-479-5735
- Carroll 410-857-2080
- Cecil 410-996-5311
- Charles 301-934-8972
- Dorchester 410-228-2560
- Frederick 301-694-1005
- Garrett 301-334-1962
- Harford 410-638-3565
- Howard 410-313-2727
- Kent 410-778-0038
- Montgomery 301-217-6450
- Prince George's 301-952-3270
- Queen Anne's 410-758-0832
- St. Mary's 301-475-4651
- Somerset 410-651-0767
- Talbot 410-822-5045
- Washington 301-791-3030
- Wicomico 410-548-4830
- Worcester 410-632-1320

State of Maryland Legislative Districts





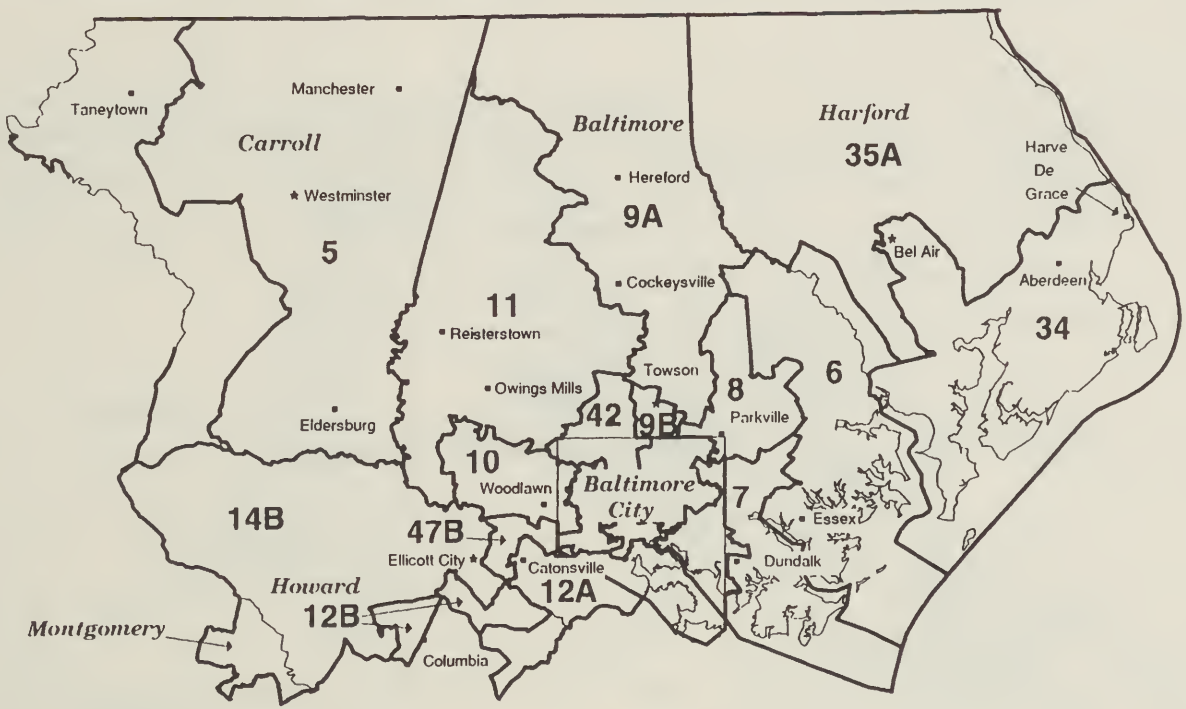
MAP 1 - State Legislative Districts

County	Districts
Garrett	1 (1A)
Allegany	1 (1A, 1B, 1C)
Washington	2 (2A, 2B, 2C), 3
Frederick	3, 4 (4A, 4B)
Carroll	4 (4B)

County Line —— District Line ——

PREPARED BY THE MARYLAND OFFICE OF PLANNING
PLANNING DATA SERVICES DIVISION, GIS SECTION

* As approved by Federal Court, April 5, 1994



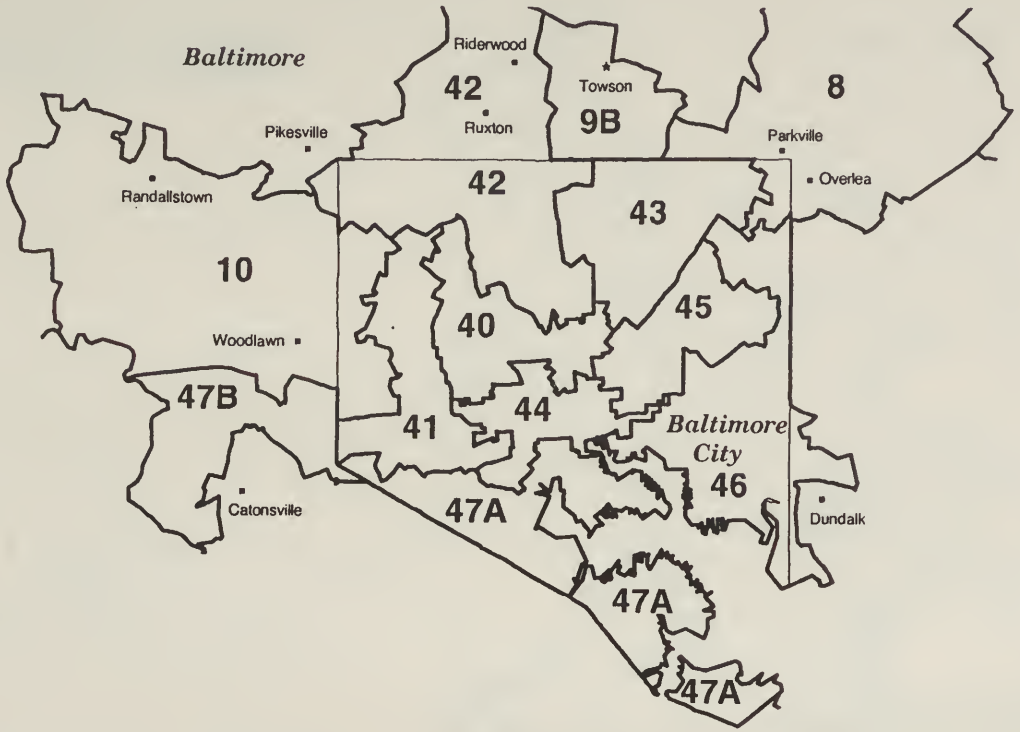
MAP 2 - State Legislative Districts

County	Districts
Carroll	5
Baltimore	6 - 9 (9A, 9B), 10 - 12 (12A), 47 (47B)
Harford	6, 34 - 35 (35A)
Howard	12 (12A, 12B), 14 (14B)

County Line —— District Line ——

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* As approved by Federal Court, April 5, 1994



MAP 3 - State Legislative Districts

City and County	Districts
Baltimore City	8, 10, 40 - 47 (47A)
Baltimore	8, 9 (9B), 10, 42, 47 (47B)

County Line —— District Line ——

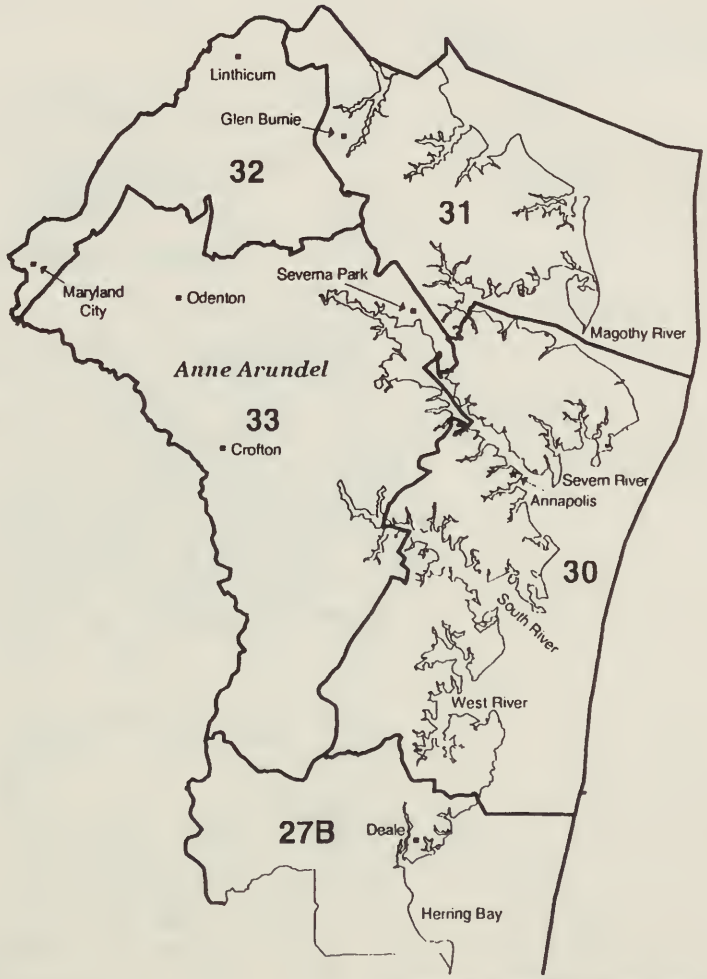
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* As approved by Federal Court, April 5, 1994

MAP 4 - State Legislative Districts

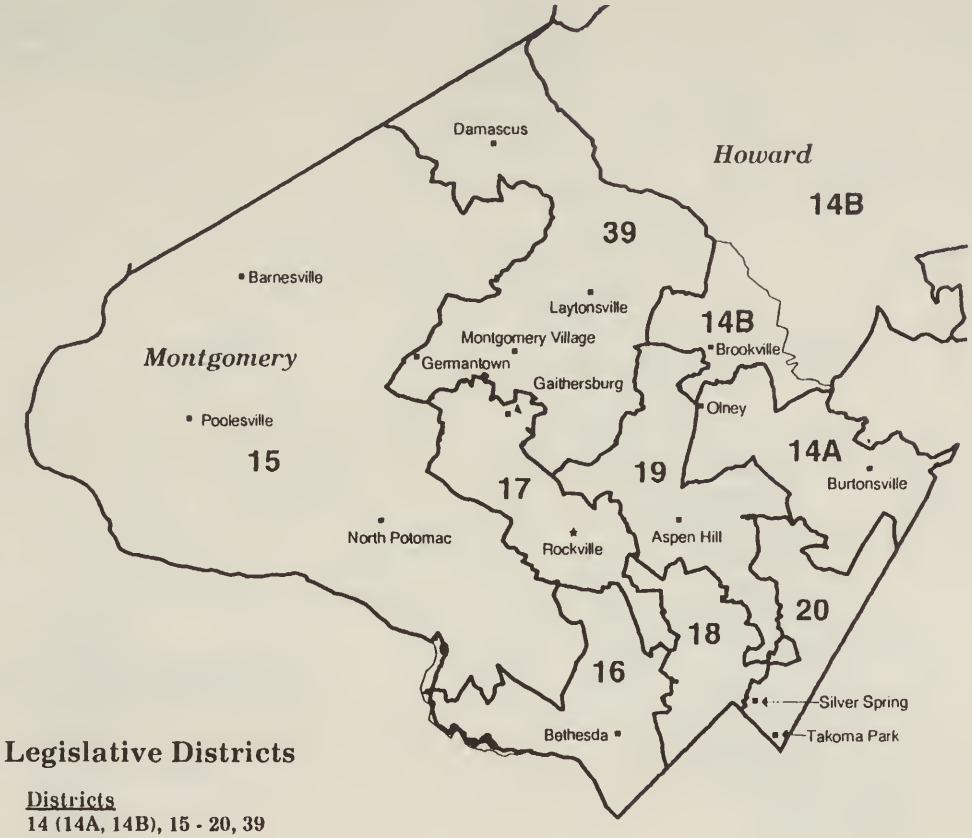
County	Districts
Anne Arundel	27 (27B), 30 - 33

County Line ——— District Line ———



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MAP 5 - State Legislative Districts

County	Districts
Montgomery	14 (14A, 14B), 15 - 20, 39
Howard	14 (14B)

County Line ---- --- District Line ——

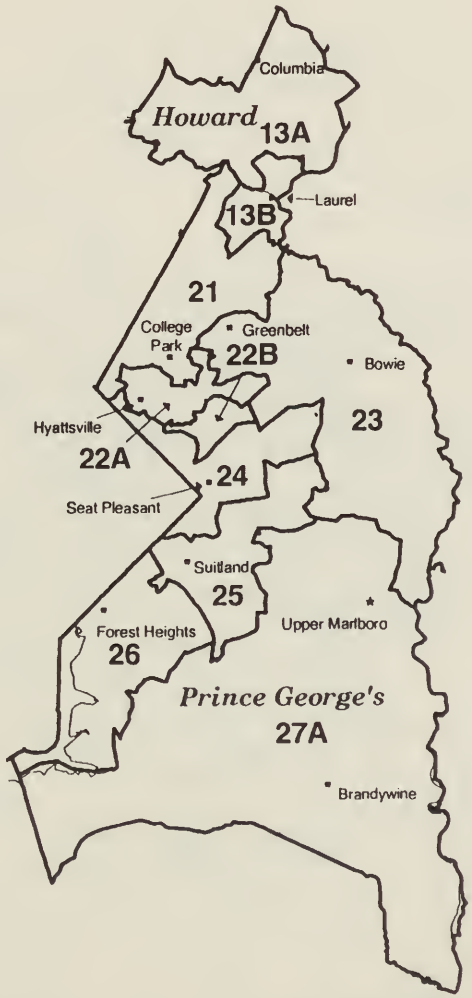
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MAP 6 - State Legislative Districts

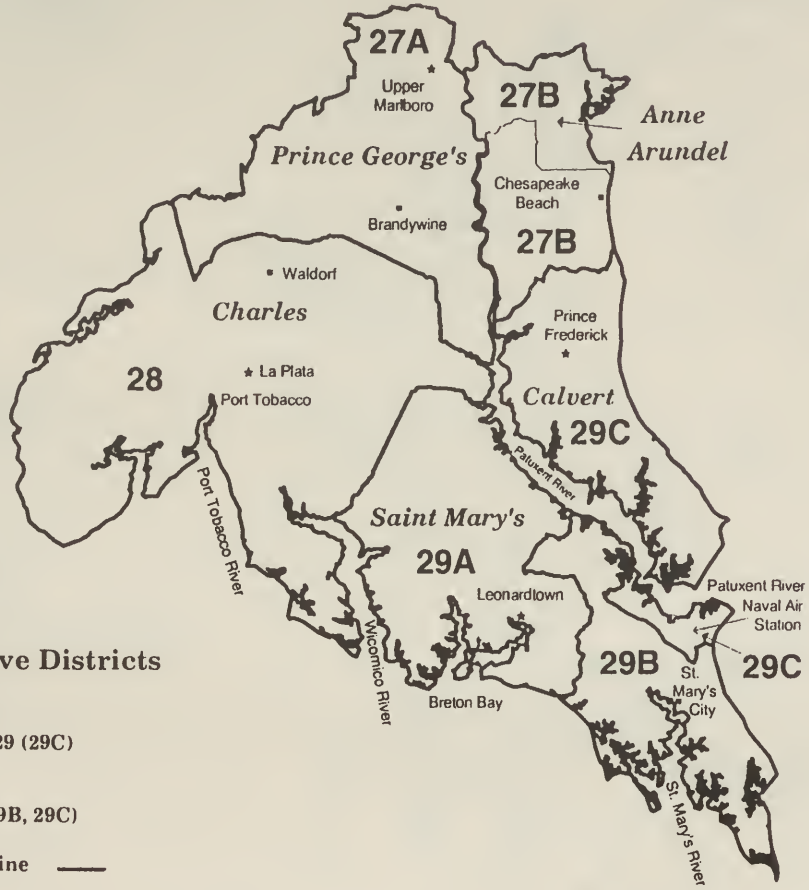
County	Districts
Prince George's	13 (13B), 21, 22 (22A, 22B), 23 - 27 (27A)
Howard	13 (13A, 13B)

County Line —— District Line ——



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MAP 7 - State Legislative Districts

County	Districts
Anne Arundel	27 (27B)
Calvert	27 (27B), 29 (29C)
Charles	28
Prince George's	27 (27A)
Saint Mary's	29 (29A, 29B, 29C)

County Line —— District Line ——

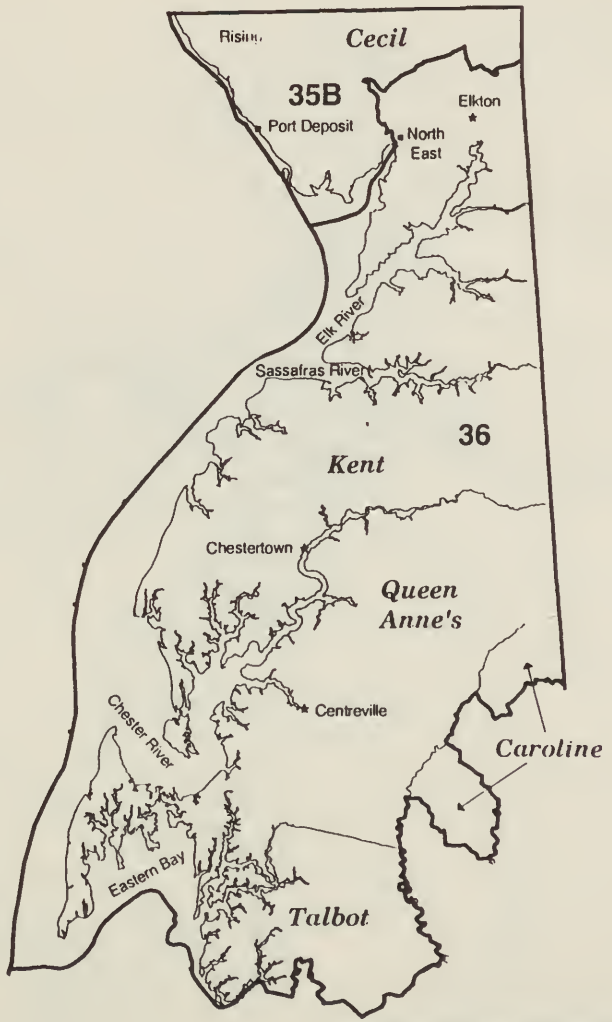
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MAP 8 - State Legislative Districts

County	Districts
Cecil	35 (35B)
Kent	36
Queen Anne's	36
Talbot	36
Caroline	36

County Line —— District Line ——



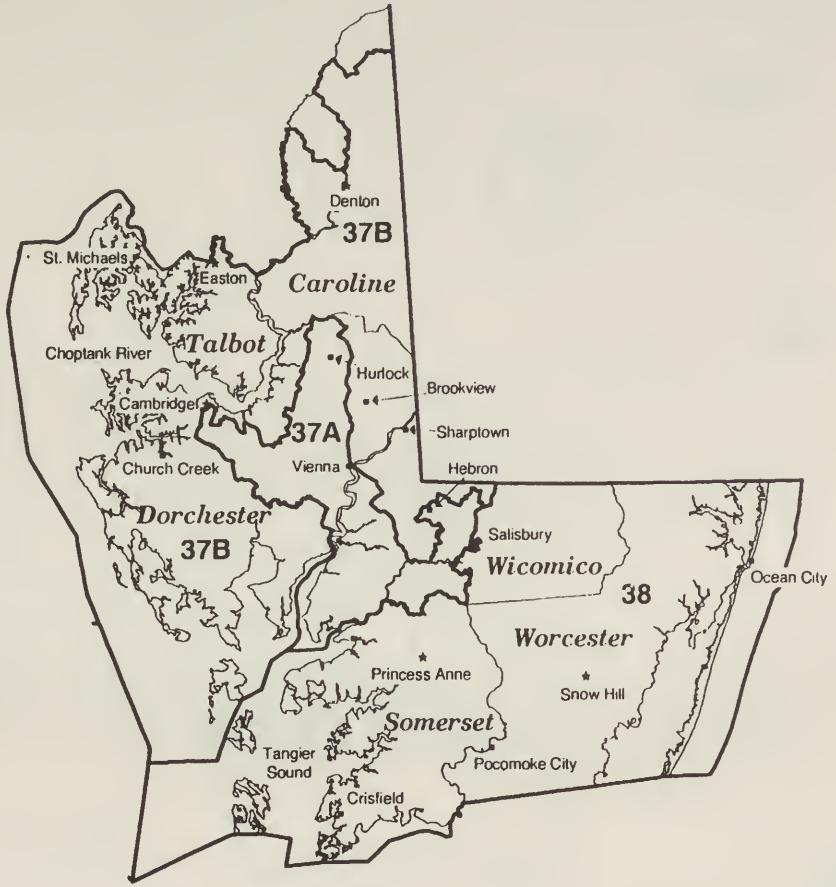
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MAP 9 - State Legislative Districts

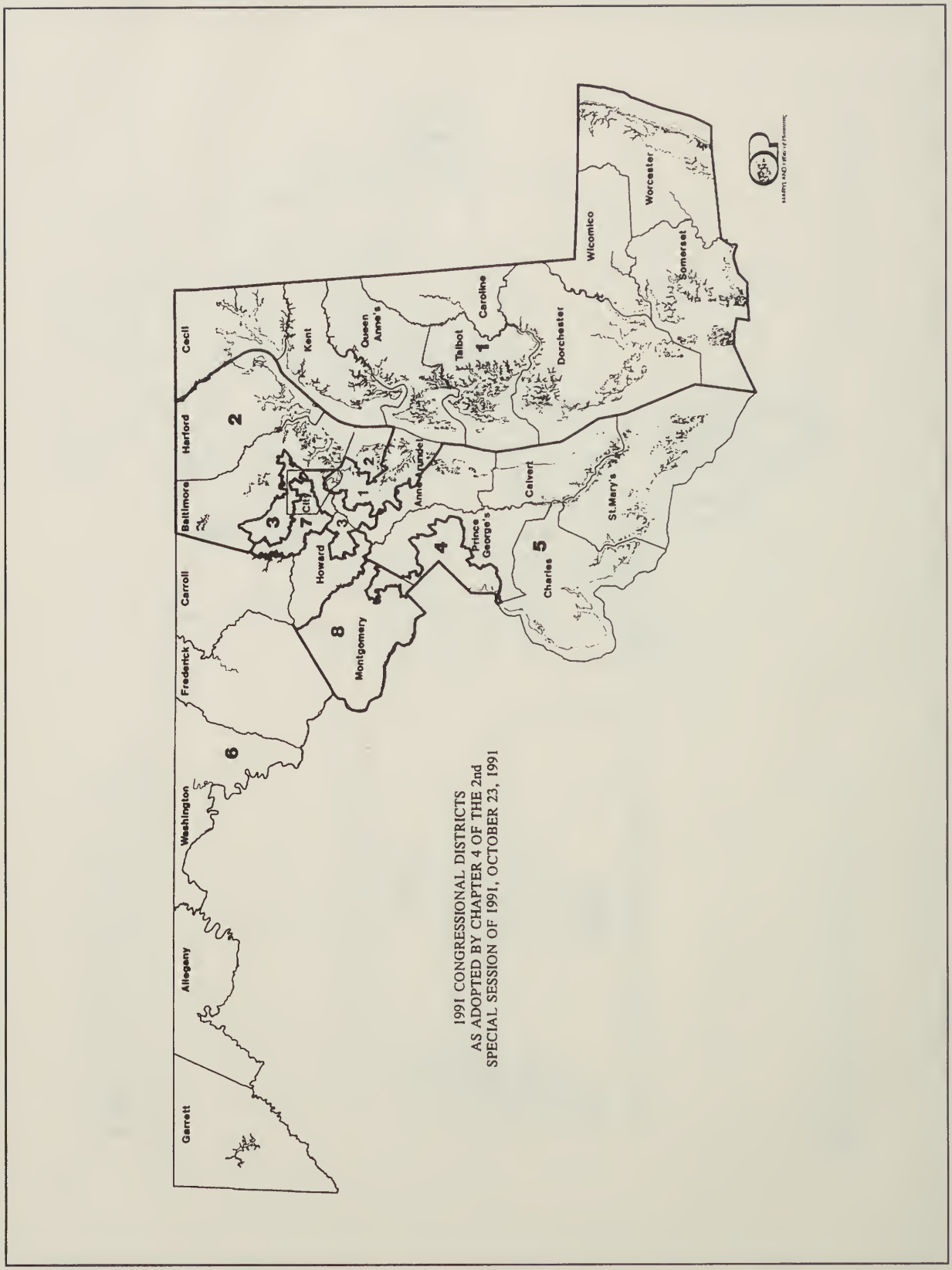
County	Districts
Talbot	37 (37B)
Caroline	37 (37B)
Dorchester	37 (37A, 37B)
Somerset	38
Wicomico	37 (37A, 37B), 38
Worcester	38

County Line —— District Line ——



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* As approved by Federal Court, April 5, 1994



1991 CONGRESSIONAL DISTRICTS
AS ADOPTED BY CHAPTER 4 OF THE 2nd
SPECIAL SESSION OF 1991, OCTOBER 23, 1991

LETTERS TO THE EDITOR

Poe's death remains a mystery

The article by Dr. Benitez (*Md Med J* 1996;45:765–769) concerning Edgar Allan Poe's cause of death was extremely interesting and provocative, and the author's suggestion that rabies was the malady that killed Poe deserves careful consideration. My pleasure in reading the article was, however, marred by the omission of any reference to the sources of the clinical data on which the diagnosis is based. This is regrettable, as serious questions exist regarding the trustworthiness of the historical record. According to the biographies I have consulted, there are two main sources of information for Poe's final illness:

1) **Dr. Joseph E. Snodgrass.** In later years, Snodgrass, who admitted Poe to Washington College Hospital, gave temperance lectures, quoting Poe as an example of alcoholic excess, elaborating and emending as time passed. In 1856, he described Poe's condition as stupefied and "paralyzed to speechlessness." By 1867, this had become, Poe muttered "scarcely intelligible oaths and other forms of imprecation."[1] For obvious reasons no secure clinical implications can be drawn from Snodgrass' reminisces.

2) **Dr. John J. Moran.** On November 15, 1849, Moran, a physician at Washington College Hospital, wrote a letter to Poe's mother-in-law, Maria Clemm,[2] giving details of Poe's last illness. It contains a few of the clinical details cited by Dr. Benitez and in particular says nothing about alcohol. Later, Moran "became a Poe collector and investigator who joined the crusade to rescue Poe's reputation . . . ."[3] In 1885, Moran published an extended account of Poe's death, far more elaborate than his earlier letter, and contradicting it in several details. In 1849, he referred to Poe's "tremor of the limbs," in 1885, he asserted that Poe "had no tremor or spasmodic action," and in 1849, Moran found Poe "in a violent delirium" is "utterly untrue." The excerpts of Moran's 1885 account[4] contain assertions that Poe did not smell of alcohol when found, and that he refused it in the hospital; I assume (circumstantially) that this is the source of Dr. Benitez's case history. If this is so, the dangers of relying on thirty-six-year-old recollections designed for the purpose of posthumous glorification (embedded in lush, hero-worshipping prose) for clinical details are self-evident.

From the above, it should be clear that I have relied almost entirely on secondary sources (sources, however, which I believe to be of the highest quality). I would be grateful if Poe scholars, and those with access to primary materials could shed light upon the subject.

David Drewer
Baltimore, Maryland

References

1. Quinn A. *Edgar Allan Poe: A Critical Biography.* New York: D. Appleton-Century Co.; 1942.
2. Quinn A (ed). *Edgar Allan Poe: Letters and Documents in the Enoch Pratt Free Library.*
3. Silverman K. *Edgar A. Poe, Mournful and Never-Ending Remembrance.* Harper Collins; 1991.
4. Robertson J. *Edgar A. Poe, a Psychopathic Study.* G.P. Putnam Sons: New York; 1923.
■



Perhaps mystery suits Poe

Dr. Benitez replies

David Drewer has made a valid point, which deserves serious consideration, regarding my analysis of Edgar Allan Poe's death. There is an unfortunate lack of empirical data regarding the death of Mr. Poe, and secondary sources, in some cases, give conflicting reports as to important details of his illness. Actual handwritten hospital records from Mr. Poe's hospitalization are not (to the best of my knowledge) currently available, and the sources of information regarding his death which we used are secondary accounts. The information that we had available came primarily from Dr. John J. Moran's letters and written accounts, and a review of the death of Poe written by Charles Scarelett (*Maryland Historical Magazine* 1978;73:4). As secondary accounts, we must consider that the events may not have been remembered or recorded accurately, or that perhaps the details of Poe's death may have been intentionally changed to suit the purpose of the authors. If data from the accounts which are available is accurate, then I believe that Mr. Poe did not die from an alcohol-related illness, and that the circumstances of his death suggest an encephalitis, which may have been rabies.

I second Mr. Drewer's call for more primary materials, and would be delighted to review any that become available. Until then, I am afraid that Mr. Poe's death will remain shrouded in mystery and that the controversy will continue — but perhaps this is only suiting for Mr. Poe.

R. Michael Benitez, M.D.
Dr. Benitez is a cardiologist and assistant professor of medicine at the University of Maryland Medical System. ■

Letters To The Editor

The editorial board of the *Maryland Medical Journal* welcomes comments, criticisms, recommendations, and observations from all its readers. Please submit letters to

Editor
Maryland Medical Journal
1211 Cathedral Street
Baltimore, MD 21201-5585

Speak Out

Proposed fee schedule for physicians spells disaster for health care in Maryland

A fee schedule for physicians, authorized by the Maryland legislature (House Bill 1359 in 1993), is soon to be implemented. Although details about timing and actual fees are still sketchy, many of our colleagues' practices have been devastated by managed care labor under the illusion that a state takeover will be a good thing. They fervently hope that a fee schedule will provide a "floor" to prevent further fee cuts by managed care. As a result of this reasoning, I believe there has been little effort by organized medicine to protect the public, or ourselves, from the disaster that the politicians have hatched.

State controls will not cure the ills of managed care, nor is a state takeover necessary to solve our problems. As the public becomes more distressed by the horror stories of managed care and the rapacious and unconscionable profits reaped by its owners, the tide will turn towards a truly free market economy that will allow patients a greater degree of control over their own health care. Once instituted however, "Big-Brother" government controls, packaged as a public "benefit," will be infinitely more difficult to restrain or to remove.

I urge all colleagues to fight the fee schedule. We must insist that Med Chi pursue a vigorous legal, legislative, and public education policy to defeat this threat to Maryland's health care. A fee schedule for physicians clearly discriminates against a single group of professionals. It means more than economic control — it means state control over the ability of doctors and patients to contract with each other, state control over patients' records, and ultimately, state control over medical decisions.

Although managed care has itself been devastating to the physician-patient relationship, government management will make things worse, as is evident from the deterioration of the situation in Canada, and from our experience with government controlled medicine here in the United States. Managed care companies can impose gag clauses, withhold payments, and remove from their panels physicians who advocate too loudly for their patients. Government employs more draconian punishments to enforce its will. The same computerized profiles and arcane rules used to prosecute physicians under Medicare and Medicaid regulations will undoubtedly be employed to enforce a Maryland state fee schedule. What will happen to our initiative, our creativity as clinicians, and our ability to be honest on behalf of our patients when we are intimidated by the specter of confiscatory fines, bankruptcy, and imprisonment?

Speak Out

Think about what happens to patients in government run health programs. The contrast with private medical practice has always served to elevate the expectations for government medicine. If private medical practice is destroyed by fee controls, bureaucratic mediocrity will become the standard for the community. What sort of physicians will be available in the future if medical students are trained under a system that threatens career ruin to anyone who follows too strictly the ethical imperative to place patient needs first?

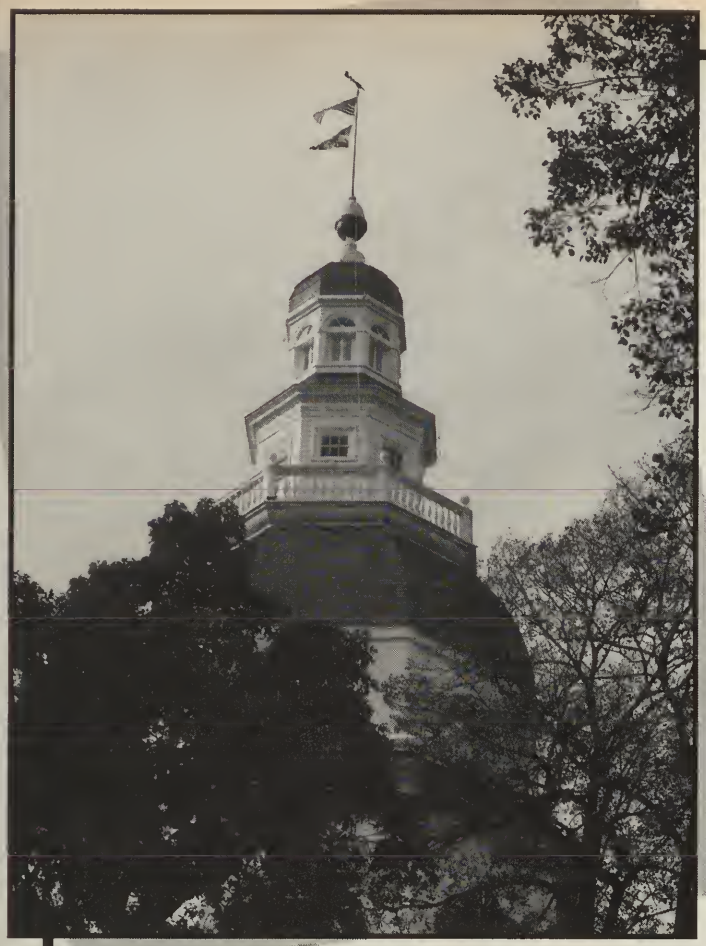
By such mechanisms, state-mandated fee controls are sure to cause severe damage to the health of our patients, the health of our loved ones, and to ourselves. If we, without a valiant fight, allow ourselves to be turned into "Stepford" doctors, groveling for an illusory minimum wage allowed to us by government bureaucrats, we will lose that essential independence to advocate for patients that has enabled American physicians to be so effective.

Even if the state of Maryland guaranteed fees that were higher than the amounts now allowed by managed care (a spurious assumption at best, and subject to fee reduction each subsequent year), it would still be an immoral and foolish bargain to accept — for we would be selling out our patients and our own professional ethics in the process. If physicians lose the trust of the community, if we ignore the computerized data rape of our patients' records, if we sell out independent medical judgment out of hopes the state will pay us a few cents more, we will no longer be effective professionals. For these reasons, I ask you to contact and urge Med Chi to join in our fight to preserve the physician-patient relationship in the "Free State" of Maryland.

Richard S. Epstein, M.D.

Dr. Epstein is current chair of the ethics committee of the American Psychiatric Association. He is a former executive committee member of the Montgomery County Medical Society (Mental Health Chair 1973-1975), and is a former president of the Washington Psychiatric Society (1994-1995). ■

Speak Out is a *Maryland Medical Journal* department created to enable Med Chi members to voice their opinions, convictions, or feelings about medicine and related subjects in a more lengthy format than is normally afforded by a letter to the editor. Please send Speak Out submissions, as well as letters to the editor and manuscripts, to the Editor, *MMJ*, 1211 Cathedral Street, Baltimore, MD 21201-5585.



Physician's Day in Annapolis

FEBRUARY 5, 1997

Meet with Maryland's legislators

• ◆ •

Become better acquainted with the medical aims of legislation

• ◆ •

Exchange views and information

• ◆ •

For more information please contact Gail Grandy at Med Chi at 410-539-0872 or 800-492-1056.

Janet S. Sunness, M.D., is among the authors of "Fixation Patterns and Reading Rates in Eyes with Central Scotomas from Advanced Atrophic Age-related Macular Degeneration and Stargardt Disease," which appears in the September 1996 issue of *Ophthalmology* (1458–1466). The study concludes that eyes with atrophy from age-related macular degeneration have different fixation patterns than do eyes with Stargardt disease, and reading rate is strongly correlated with extent of the atrophy. Dr. Sunness is on staff at The Johns Hopkins Hospital and is also associated with The Lions Vision Center and the Retinal Vascular Center of The Wilmer Eye Institute of The Johns Hopkins University School of Medicine where she serves as an assistant professor.

Bryan W. Cunningham, MSC, Masahiro Kanayama, M.D., Larry Parker, M.D., and Paul C. McAfee, M.D., are among the authors of "In Vitro Biomechanical Comparison of Multistrand Cables With Conventional Cervical Stabilization." The article discusses a study which showed that "Multistrand cables were superior to monofilament wire with fatigue testing using an in vitro calf cervical spine model" *(Spine 1996;21:2108–2114).* Drs. Cunningham and Kanayama are with Union Memorial Hospital, Orthopaedic Biomechanics Laboratory, Baltimore. Drs. Parker and McAfee are with Saint Joseph's Hospital Spine and Scoliosis Center, Baltimore.

Thomas P. Laughren, M.D., is the author of a contemporary perspective entitled "Regulatory Issues in Pediatric Psychopharmacology" *(J Am Acad Child Adolesc Psychiatry 1996;3:1276–1282).* The article asserts that "labeling claims for the effectiveness of drugs in the treatment of psychiatric illnesses in children and adolescents must be based on data from adequate and well-controlled investigations." Dr. Laughren is with the Food and Drug Administration in Rockville.

Stephen T. Bartlett, M.D., is lead author of a new study at the University of Maryland Medical Center. The study, published in the October 7, 1996, issue of *Annals of Surgery,* has shown that pancreas transplants alone can be as successful as combined pancreas/kidney transplants. "This has enormous significance for long-term diabetic patients who are having complications, but not kidney failure," says Dr. Bartlett. Dr. Bartlett is a professor of surgery and medicine at the University of Maryland School of Medicine.

Norman E. Rosenthal, M.D., is coauthor of "Subsyndromal Seasonal Affective Disorder in Antarctica." The seasonality of depressed mood was examined in 70 men and women who spent the 1991 austral winter at three American research stations in Antarctica. (*J Ner Ment Dis 1996;9:530–534).* Dr. Rosenthal is with the clinical psychobiology branch, National Institute of Mental Health, Bethesda.

J. Leonel Villavicencio, M.D., FACS, is one of the authors of "The Crochet Hook Method of Stab Avulsion Phlebectomy for Varicose Veins" which appears in the September 1996 issue of *The American Journal of Surgery (172:278–280).* The article describes the crochet hook method for removal of varicose vein clusters as opposed to excision through ministabe incisions, which is currently the method of choice. The authors assert that, "The technique is easily mastered, cost effective, and has excellent therapeutic results." Dr. Villavicencio is associated with the department of surgery, Uniformed Services University of the Health Sciences, National Naval Medical Center, Bethesda.

Michael S. Opsahl, M.D., Edwin D. Robins, M.D., Dennis M. O'Connor, M.D., Richard T. Scott, M.D., and Marc A. Fritz, M.D., are co-authors of "Characteristics of Gonadotropin Response, Follicular Development, and Endometrial Growth and Maturation Across Consecutive Cycles of Clomiphene Citrate Treatment." The article appears in the October 1996 issue of *Fertility and Sterility (66:533–539).* Drs. Opsahl and Robins are affiliated with the department of obstetrics and gynecology, National Naval Medical Center, Bethesda. Drs. O'Connor, Scott, and Fritz are with the department of obstetrics and gynecology, Uniformed Services University of the Health Sciences, Bethesda.

Barbara J. Crain, M.D., and Donald L. Price, M.D., are among the authors of "Expression and Distribution of Amyloid Precursor Protein-Like Protein-2 in Alzheimer's Disease and in Normal Brain." The article appears in the October 1996 issue of *The American Journal of Pathology: Cellular and Molecular Biology of Disease (149:1087–1095).* Drs. Crain and Price are with the department of pathology (neuropathology laboratory), The Johns Hopkins University School of Medicine, Baltimore.

Steven N. Goodman, M.D., and Stanley R. Hamilton, M.D., are two of the authors of "Relationship Between CD44 Expression and Cell Proliferation in Epithelium and Stroma of Colorectal Neoplasms" (*Am J Pathol 1996;149:1147–1155).* Dr. Goodman is with the department of oncology biostatistics, and Dr. Hamilton is associated with the department of pathology and the oncology center of The Johns Hopkins University School of Medicine. Additional authors include Koh Furuta of the department of pathology, Marianna Zahurak of the department of oncology biostatistics, Xiao-Ling Yang and Cecilia Rosada of the department of pharmacology and molecular sciences, and J. Thomas August of oncology biostatistics and the Oncology Center of The Johns Hopkins University School of Medicine, Baltimore.

What Your Patients
MAY BE READING

- "Disease or Addiction: Alcohol's Unresolved Question"
  Professional Counselor, October 1996
- "Abortion and Breast Cancer"
  U.S. News and World Report, October 21, 1996
- "Plastic Surgery Update: What Can You Fix, What Does It Cost, Will It Hurt?"
  New Woman, October 1996
- "Fighting Addiction"
  Psychology Today, September/October 1996
- "Music of the Brain"
  Discover, October 1996
- "Steroids, Are They Dangerous?"
  Muscle and Fitness, November 1996
- "Eat This: 45 Low-Fat Secrets"
  Men's Health, November 1996
- "The Smart Pap"
  Prevention, October 1996
- "Do You Need a Flu Shot?"
  Reader's Digest, October 1996
- "Dr. Spock: Best Ways to Fight the Common Cold"
  Parenting, October 1996
- "The At-Home HIV Test Arrives"
  Self, October 1996
- "The Best in Taste, Nutrition, and Price"
  Consumer Reports, October 1996
- "Herbs For a Great Menopause"
  Healthy & Natural, September 1996
- "30 Stress Relievers"
  Family Circle, November 1, 1995
- "HMOs: How to Protect Your Privacy"
  For Women First, October 28, 1996
- "Reality Check: How Old is Your Body?"
  Marie Clair, November 1996
- "New Cures For Cancer"
  Ladies' Home Journal, November 1996
- "Routine Surgery That Can Harm Your Fertility"
  Redbook, November 1996
- "Simple Ways to Cure Pain"
  McCall's, November 1996
- "New Antibiotics Guidelines: What You Must Know"
  Child, November 1996
- "Your Health: The Power of Touch"
  Ms., September/October 1996
- "Saving Our Breast"
  Essence, October 1996
- "Out of Control Eating: When You Can't Stop"
  Seventeen, November 1996
- "The Untold Dangers of Secondhand Smoke"
  Good Housekeeping, November 1996
- "Stressed? Mood-Altering Workouts"
  Mademoiselle, November 1996

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- Assistive technologies for people with disabilities
- Pre-surgery medical considerations (e.g., in elderly, pediatric, or psychiatric patients; questions before emergency surgery).

Papers may be original research, literature reviews, brief reports, case histories accompanied by a brief overview/summary of the relevant literature, or well-documented opinions about future trends.



All submissions should conform to *Maryland Medical Journal* requirements. For further information or to obtain a copy of submission requirements, see page 924.

The Maryland Medical Journal (MMJ) *is a monthly publication of the Medical and Chirurgical Faculty of Maryland. The journal's goals are educational and informative: the publishing of scientific articles (original research, case studies, and review articles) and other technical information, as well as editorials, letters, special articles (evaluations, position papers, reviews of nonscientific subjects), membership and legislative news, continuing medical education notices, and programs and policies of the faculty.*

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  The letter should include a statement to the effect that all authors have participated in the conception and design of the work and in the writing of the manuscript, and that they take public responsibility for it. The authors should attest to the validity and legitimacy of the data, and acknowledge that they have reviewed the final version of the manuscript and approve it for publication.

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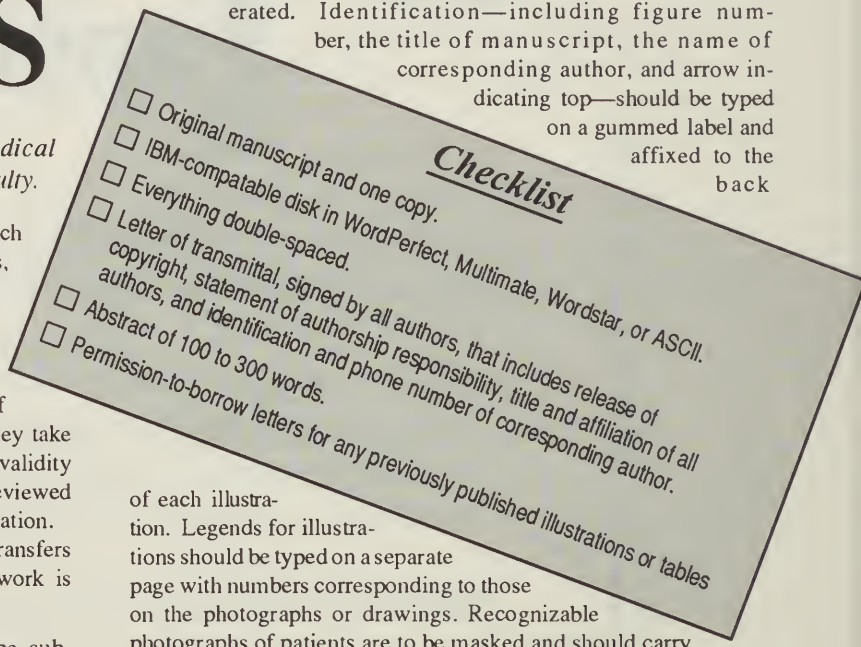
  All material, including references, tables, and legends, must be double-spaced. Pages should be numbered. (All abbreviations should be spelled out on first use.) The original manuscript plus one copy should be submitted on standard (8.5" x 11") bond paper. If at all possible, an IBM-compatible disk should be included, with the manuscript entered in a WordPerfect, Multimate, Wordstar, or ASCII format; the transmittal letter should identify the format used.

- ***References***—References are limited to those citations noted in the text. References should be numbered consecutively as they appear in the text and should be kept to a minimum (fewer than thirty-five). Personal communications and unpublished data are not acceptable. At a minimum, references should include names of all authors, complete title of the article cited, name of journal abbreviated according to *Index Medicus* (if abbreviation is not known, journal name should be spelled out fully), year of publication, volume number, and first and last page numbers. Sample references are as follows:

  1. Stevens MB. The clinical spectrum of SLE. Md Med J 1991; 10:875–85.
  2. Ropes MW. Characteristics, manifestations, and pathologic findings. In: Ropes MD, ed. Systemic Lupus Erythematosus. Cambridge, MA: Harvard University Press. 1976; 50–4.

- ***Tables***—Tables should be typed on separate sheets of paper, be numbered, and have a brief descriptive title. Data presented in tables should be self-explanatory and should supplement, not duplicate, the text; the Editor reserves the right to edit tables. Authors should be sure that statistics are consistent in both tables and text.

- ***Illustrations***—Illustrations include material that cannot be set in type. Photographic material must be submitted as high-contrast, glossy prints. Drawings and graphs must be done professionally in india ink on high-grade white drawing paper or be computer generated. Identification—including figure number, the title of manuscript, the name of corresponding author, and arrow indicating top—should be typed on a gummed label and affixed to the back of each illustration. Legends for illustrations should be typed on a separate page with numbers corresponding to those on the photographs or drawings. Recognizable photographs of patients are to be masked and should carry with them written permission for publication. Cost of printing color photographs must be borne by the author.



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  Accepted manuscripts become the permanent property of the *MMJ* and are subject to copy editing. (The *Chicago Manual of Style* and the unabridged *Random House Dictionary of the English Language* are used as style guides.) The corresponding author is sent a reprint order form and galley proofs. S(he) then has 48 hours in which to make minor changes and clear all corrections and changes with co-authors; if proofs are not returned by the specified date, they will be considered approved as typeset. ■

Pulmonary tuberculosis in a high school student and a broad contact investigation: lessons relearned

Evelyn M. Rodriguez, M.D., M.P.H., Stephanie Steinbart, R.N., Gloria Shaulis, R.N., Sarah Bur, R.N., and Diane M. Dwyer, M.D.

Dr. Rodriguez is presently associate director for research at the Health Resources Services Administration. She conducted this work while assigned to the Maryland Department of Health and Mental Hygiene (DHMH) during her tenure in the Epidemic Intelligence Service, Centers for Disease Control (CDC). Ms. Steinbart is the communicable disease/HIV program advisor supervisor and Ms. Shaulis is the communicable disease supervisor of the Frederick County Health Department. Ms. Bur is the chief of the division of tuberculosis control, and Dr. Dwyer is the chief of the center for clinical epidemiology and immunization, of the Maryland DHMH.

ABSTRACT: *A case of acid-fast bacillus smear-positive cavitary tuberculosis (TB) was diagnosed in a high school senior (Student A) who lived in a community with a low prevalence for TB. A broad TB investigation was conducted in July 1994 among persons who attended the high school graduation with Student A. Follow-up investigations three months later focused on close contacts at highest risk. A positive tuberculin skin test (TST) was defined as induration of ≥ 5 mm after placement of purified protein derivative. We determined the TST results and the estimated costs incurred by the local health department for the broad screening that was conducted. TST results were available for 122/161 (75%) close contacts, and for 1804 persons with nonclose contact with Student A. Her family members were known to have had prior positive TSTs. Positive TSTs were found among 3/122 (2.5%) close contacts, versus 34/1804 (1.9%) persons with nonclose contact. Only one close contact had conversion of TST from negative to positive, and no other active TB case was identified. We estimate the broad TST screening cost the local health department $36,507. Broad TST screening was costly and diverted staff from their customary public health service priorities. Local health departments and clinicians should follow the recommendations of the American Thoracic Society and the Centers for Disease Control and Prevention regarding TB contact investigations.*

Introduction

In 1994, 24 361 cases of tuberculosis (TB) were reported in the United States.[1] TB is a reemerging pathogen,[2] with 51 700 excess cases reported from 1980 to 1992.[3] Currently, three out of ten cases of TB in the United States are reported among foreign-born persons.[4] The prevalence of tuberculin skin test (TST) positivity among United States-born male military recruits 17 to 35 years old is about 2% to 3%.[5]

A TB case was reported in July 1994 in a foreign-born high school senior (Student A) in a suburban/rural community with low TB prevalence. We report the epidemiologic and TST results of the broad TB contact investigation conducted by the local health department.

Student A

Upon immigration to the United States in December 1990, Student A had a 13 mm TST as determined by placement of purified protein derivative (PPD). She was monitored by the local health department monthly for six months of isoniazid (INH) preventive therapy. In July 1994, she came to the attention of the local health department because of a history of a productive cough for 2 to 6 weeks in duration. A chest radiograph (CXR) disclosed cavitary pulmonary disease, and three sputum smears were positive for acid-fast bacillus. These sputum cultures were positive for Mycobacterium tuberculosis with 100 or more colonies.

Because Student A was symptomatic with TB for up to six weeks, possible exposure of school contacts might have occurred during May and June (**Figure 1**). Student A had attended classes throughout the year, played at a music recital, and attended all senior class events. Student A graduated in June and TB was diagnosed in July. She reported that she walked to and from school, had few friends, and had no other extracurricular activities except for after school and weekend work.

The general public awareness of TB, the school and local health department's concerns with the public health, and concern about a possible breach of confidentiality if only close contacts were TST screened, led to the local health department's decision to conduct community-wide TST testing.

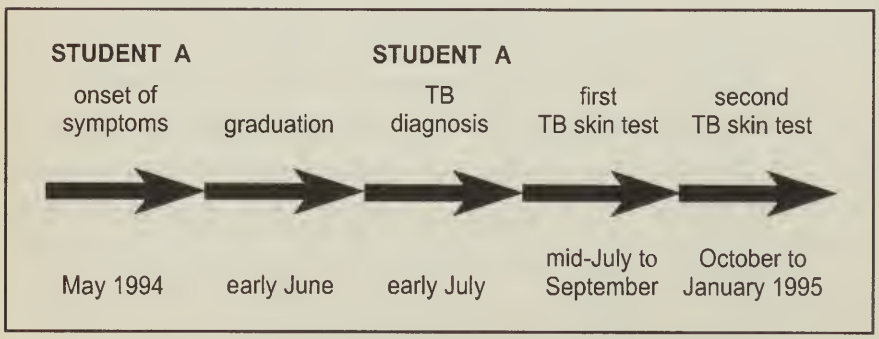


Figure 1. Time line for exposure to Student A and TST testing

Methods

Epidemiologic Investigation. The first phase of the broad TST screening occurred from July through September, with mass clinics conducted in late July and early August (**Figure 1**), before and during which the local health department issued multiple press releases and participated in local television news interviews. Student A, school staff, and the employer were interviewed by the local health department to identify close contacts. They modified the investigation by focusing the second TST testing on close contacts. Close contacts were defined as Student A's family members, friends, coworkers, classmates, and teachers. Nonclose contacts were all other persons. Close contacts were identified, located, and in October sent certified letters notifying them of the need for TST testing; they were supplied with reply forms if the TST had been performed elsewhere. The second TST testing period occurred from October through January 1995, with mass clinics on two days in October, which were 12 to 16 weeks after the last possible exposure to Student A. They also used a standardized questionnaire to determine risk factors for TB including place of birth, cancer, diabetes, HIV-infection status, and immunosuppressive medications.

A positive TST was defined as induration of $\geq$ 5 mm read 48 to 72 hours after placement of PPD. A TST conversion was defined as a positive TST during October through January 1995 in a person with a documented negative TST on the first TST test.

Cost Determinations

We evaluated the actual public health program costs from the local health department perspective. Costs for broad TST testing were determined by estimating the hours of administrative, nursing, physician, and clerical time. That estimate included the time for planning and coordination for the broad investigation (administrator), follow-up for TST-positive persons (nurses), clinical evaluation of TST-positive persons (physicians), and data entry (clerks). We then estimated the direct salary and indirect salary (33% of direct salary) costs. We also obtained estimated cost figures for CXRs and their interpretations, the

Table 1: TST results among close and nonclose contacts

CLOSE CONTACTS

	Number (N)	N, Tested and Read	N, TST-Positive
Friends	4	3	1 (33%)
Co-Workers	5	3	1 (33%)**
Classmates/Teachers	152	116	1(0.9%)
Totals*	161	122	3(2.5%)

NONCLOSE CONTACTS

	N, Tested and Read	N, TST-Positive
Foreign Born	63	13 (21%)
U. S. born ≤ 18 years	1072	6(0.6%)
U. S. born 19-34 years	164	0
U. S. born ≥ 35 years	505	15 (3.0%)
Totals***	1804	34 (1.9%)

** Excludes 6 family members who were all known to have prior positive TSTs*
***Person with positive TST later disclosed to have had a positive TST history*
****Out of 2159 persons who had TSTs placed*

mailing of certified letters for close contacts, and supplies including the costs of stationary, syringes and needles, PPD, and alcohol swabs.

Results

The TST results of the broad contact investigation are shown in **Table 1**. Student A's six family members were not TST tested. Two members of the family had a history of treated TB, and four had prior positive TSTs and had received INH prophylaxis; all six were asymptomatic. Student A had four friends, one of whom was TST-positive. Among five coworkers, one was not tested because of a prior positive TST and another did not comply with testing. The one coworker who was tested and TST-positive later discovered that she had a prior history of a positive TST as a child. Out of 152 classmates and teachers, 116 were tested; one classmate had a TST conversion.

Overall, three (2.5%) persons were TST-positive among close contacts, and 34 (1.9%) were TST-positive among nonclose contacts. All persons with positive TSTs were asymptomatic and had negative chest radiographs.

The itemization of the estimated costs for the broad investigation is shown (**Table 2**). In the broad investigation, 2159 persons had TSTs placed (close and nonclose contacts), and 1804 persons had TSTs read (**Table 1**).

Regarding INH prophylaxis, 10 of 11 persons with induration of ≥ 10 mm accepted the physician recommendation for prophylaxis; one parent of a child refused. Of those who accepted INH prophylaxis, two were close contacts (including one person with a TST conversion), and eight were nonclose contacts. Of the 26 TST-positive persons for whom INH prophylaxis was not recommended, only one was a close contact and had disclosed a prior positive TST with prior INH prophylaxis. Twenty-one nonclose contacts were not offered INH prophylaxis because they were ≥ 35 years of age (because of increased risk for INH-related hepatitis)[6] or had chronic liver disease, three had TST indurations of only 5 to 9 mm, and one had been previously treated for TB.

Discussion

Our report supports a systematic, targeted approach to TB contact investigations. The broad TB contact investigation yielded no additional active TB cases, and only one TST conversion in this community. We speculate that broad TST screening was costly and may reinforce the false fear of epidemic spread of TB. We documented other researchers' findings[7,8] that unfocused TST testing diverts resources, and will detect prevalent TST-positive persons unrelated to the index case. In fact, when we recognized the low TST-positivity rate of the first TST testing, we subsequently chose to target the close contacts for the second phase of testing.

This report is of public health importance because TB is a reemerging infectious disease. In TB contact investigations, local health officials may be pressured to expand TST testing beyond close contacts in schools, perhaps because of the public's fear of large and/or multi-drug resistant TB outbreaks.[9]

Table 2: Cost itemization for the broad investigation

✦ Nurses	$19,187
✦ Clerks	$10,208
✦ Letters	$ 957
✦ Chest radiographs	$ 2,030
✦ Physician	$ 1,080
✦ Administration	$ 1,705
✦ Supplies	$ 1,340
Totals	$36,507

This broad TB contact investigation disclosed that close contacts had a TST-positivity rate of only 2.5%, which was low, and similar to the rate among non-close contacts. We also observed that broad TST testing yielded few TST-positive persons and missed 24% of close contacts.

Our cost estimates did not include the costs of INH prophylaxis or of TB treatment medications and long-term clinical monitoring, private physician self-referrals, nor the costs of diverting clinical care away from those who would have ordinarily received preventive services (e.g. prenatal care, family planning). Thus, our analysis is limited to the incremental costs incurred by the local health department. An author from the Netherlands also documented that a targeted approach was more effective than indiscriminate screening, although no costs were presented.[7]

Because of the limited resources available to clinicians and health departments, they should follow the recommendations of the American Thoracic Society and the Centers for Disease Control and Prevention regarding TB contact investigations.[1,10] TB contact investigations should be conducted when the estimated probability of transmission is high. The probability for transmission is considered high when the source case is generating aerosolized particles containing tubercle bacilli, as evidenced primarily from the presence of acid-fast bacilli in the sputum smear.[10] The concentric circle method of contact tracing[8,10] should be used to guide the TST testing of close contacts to identify TB cases and persons with TST conversions. This method tests the closest contacts first and determines whether the TB infection rate is above that expected for the local community. If there is evidence of transmission among the closest contacts (i.e. family members, roommates), as determined by TST-positivity, TST testing is expanded to the next circle of contacts (i.e. close friends, coworkers, followed by classmates, and so on) until a TST rate is found that approximates that of the local community. Furthermore, establishing the population for each concentric circle of contacts will help focus TST testing efforts to identify and test those persons most at risk for TB infection.

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New Therapy to Prevent Stroke Disability Now Available

MARYLAND RESIDENTS who are having a stroke now have access to a new, Federal Drug Administration (FDA)-approved drug that reduces the chance of permanent disability. "This is an entirely new approach to the treatment of stroke," says Marian LaMonte, M.D., director of the Brain Attack Team at the University of Maryland Medical Center and assistant professor of neurology at the University of Maryland School of Medicine. "Before this new clot-busting drug was approved, we had no way to actively intervene to prevent disability in people whose strokes were caused by a blockage in a blood vessel," she says.

The new drug is Activase, also known as tissue plasminogen activator or TPA. The FDA has approved its use for stroke in June 1996, after a major study sponsored by the National Institute of Neurological Disorders and Stroke. That study found that patients treated with Activase were at least 33% more likely to have little or no disability compared to patients who received a placebo.

For more information, contact the University of Maryland Brain Attack Center at 410-328-6571.

Geriatrics for the Clinician

ISOLATED SYSTOLIC HYPERTENSION IN THE ELDERLY

Introduction

Isolated systolic hypertension (ISH) is an independent risk factor for cardiovascular disease with a 6% to 18% prevalence in adults 60 years and older.[1,2] Treatment of ISH reduces the risk of strokes and myocardial infarctions.[3] It is estimated that by the year 2025, eight million of those aged 60 or older may have ISH.[2] The following is a brief review of the management of patients with ISH.

Diagnosis

Proper technique in measuring blood pressure is essential. The patient's activity prior to blood pressure measurement, patient position, equipment, and blood pressure recording can impact obtaining accurate and reliable blood pressure readings (**Table 1**). Several blood pressure measurements taken on two or more different occasions, at least one week apart, are required to make the diagnosis of ISH (systolic blood pressure (SBP) $\geq$ 140 mm Hg and diastolic blood pressure (DBP) < 90 mm Hg).[4] Previously, ISH was defined with higher SBP levels, and it is noteworthy that several epidemiological studies and clinical trials have used these higher levels as cutoff points.

Table 1. Proper blood pressure measurement technique[4]

Patient activity	• 5 minutes rest • No smoking/caffeine within prior 30 minutes
Patient position	• Seated • Arm bare, supported at heart level
Equipment	• Appropriate cuff size • Accurate measuring device*
Blood pressure recording	• SBP and DBP (phase V) • average of $\geq$ 2 readings separated by 2 minutes

*Sphygmomanometer, aneroid manometer, or electronic device

Treatment

In treating ISH, the goal is to decrease cardiovascular morbidity and mortality while maintaining or improving a patient's quality of life. The intermediate marker of this goal is blood pressure. For patients with initial SBP $\geq$ 180 mm Hg, the aim is to lower the SBP to < 160 mm Hg. For patients with SBP 160 to 179 mm Hg, SBP should be lowered by 20 mm Hg. Further blood pressure reduction may be considered if the initial reduction is well tolerated.[4] To achieve goal blood pressure, several aspects of treatment may be employed: patient education, lifestyle management, and pharmacotherapy.

Patient education. Patient education is a key component in the management of ISH, especially considering ISH is usually asymptomatic. Patients should receive both written and verbal information regarding disease management. Patients should understand the significance of ISH and the goals of therapy. The therapy, which includes lifestyle modifications and pharmacotherapy, should be explained to the patient. Practitioners should discuss the specifics of drug therapy with the patient: drug, dose, frequency, route of administration, and expected benefits and risks. Periodic reeducation of patients is important for successful management of ISH in elderly patients.

Lifestyle management. Patients with ISH may benefit from lifestyle modifications (**Table 2**). These lifestyle modifications are intended to lower the patient's overall cardiovascular risk. Cigarette smoking is an independent risk factor for cardiovascular disease. Although some of these

Table 2. Lifestyle Modifications[4]

- Smoking cessation
- Decreased sodium intake
- Weight reduction
- Aerobic activity
- Moderation of alcohol consumption
- Decreased saturated fat and cholesterol intake
- Maintenance of adequate dietary potassium, calcium, and magnesium intake

lifestyle modifications have not been specifically studied in the elderly, other patient populations have seen reductions in blood pressure. Decreasing sodium intake has reduced SBP.[5] Increasing physical activity, decreasing weight in overweight individuals, and consuming no more than one ounce of ethanol per day may lower blood pressure and subsequent risk for cardiovascular disease.[4]

Pharmacotherapy. The fifth report of the Joint National Committee on the detection, evaluation and treatment of high blood pressure (JNC-V) recommends pharmacologic therapy for patients with ISH who have SBP $\geq$ 160 mm Hg despite lifestyle management. However, immediate pharmacotherapy may be required in patients with SBP > 210 mm Hg or target-organ damage irrespective of SBP. Lowering SBP in patients with ISH has been shown to reduce the incidence of strokes and heart attacks.[3] The Systolic Hypertension in the Elderly Program (SHEP) trial evaluated the use of antihypertensives (chlorthalidone, atenolol, and reserpine) in 4736 patients, aged 60 years or older with SBP $\geq$160 mm Hg and DBP <90 mm Hg. Patients were randomized to chlorthalidone 12.5 mg or placebo daily. If goal blood pressure was not achieved according to JNC-V guidelines even after an increase to 25 mg of chlorthalidone, the active treatment group received additional therapy with atenolol 25 to 50 mg daily or reserpine 0.05 to 0.1 mg daily. Patients receiving drug therapy had a significant 35% reduction in non-fatal and fatal stroke compared to those receiving placebo. The active treatment group also had a significant 26% reduction in the combined endpoints of non-fatal myocardial infarction and coronary heart disease mortality. There were few significant adverse effects associated with chlorthalidone alone, or in combination with atenolol or reserpine. Elevations in serum cholesterol and fasting glucose concentrations were found. However, there were no differences between the groups with regard to quality of life, dementia, or depression.[3]

The Medical Research Council (MRC) trial provides additional evidence that antihypertensive therapy to lower SBP in patients with ISH decreases cardiovascular morbidity and mortality.[6] Although the MRC trial was not specifically designed to evaluate antihypertensive therapy in elderly patients with ISH, 43% of the subjects had ISH. Subjects received one of three possible initial regimens: 1) hydrochlorothiazide and amiloride, 2) atenolol, or 3) placebo. For groups 1 and 2, if blood pressure was not controlled, patients received combination therapy with hydrocholorothiazide, amiloride and atenolol. Statistically fewer strokes, coronary events, and cardiovascular events were seen for patients receiving drug therapy. However, unlike those receiving therapy with diuretics alone, no significant benefit was seen in patients receiving beta-blockers alone compared to placebo.

Based on results from the SHEP and MRC trials, diuretics appear to be effective agents with minimal adverse effects. Beta-blockers, in combination with diuretics, also appear to be safe and effective in reducing cardiovascular morbidity and mortality.

Although other antihypertensive classes such as angiotensin-converting enzyme (ACE) inhibitors, calcium channel blockers, alpha blockers, and angiotensin II antagonists have been shown to lower blood pressure effectively, there are no data to show a reduction in morbidity and mortality with these agents. This is why diuretics and beta-blockers are the preferred antihypertensives for first line therapy.[4] However, certain patient populations may have contraindications to diuretics or beta-blockers. For example, diuretics are contraindicated in preeclampsia, while beta-blockers are contraindicated in patients with asthma, chronic obstructive pulmonary disease, or heart block. Concomitant disease states may also make an alternative antihypertensive preferable. ACE inhibitors have been shown to delay the progression of renal disease in patients with insulin-dependent diabetes mellitus (IDDM), irrespective of blood pressure reduction.[7] Thus, ACE inhibitors may be able to effectively control blood pressure and reduce the risk of renal disease in hypertensive patients with IDDM. Alpha-blockers are effective agents in decreasing the symptoms of benign prostatic hyperplasia, as well as controlling blood pressure. [8]

Monitoring

Blood pressure should be monitored at every office visit. Standing and seated or supine blood pressures should be taken to identify postural hypotension, a risk factor for falls in the elderly. Elderly patients may already be at an increased risk for postural hypotension due to decreased compensatory mechanisms. Thus, antihypertensive agents should be started at lower doses. Low dose diuretics (e.g. chlorthalidone or hydrochlorothiazide 12.5 mg daily) have been shown to effectively reduce blood pressure with minimal adverse effects. However, even at these lower doses, adverse effects may occur and it is prudent to monitor for them. Diuretics can cause hypokalemia and hyperuricemia. Beta-blockers, similar to diuretics (excluding indapamide) may worsen glycemic control in diabetic patients. Beta-blockers may also mask signs and symptoms of hypoglycemia except for sweating. Constipation and peripheral edema have been problematic in patients receiving calcium channel blockers while ACE inhibitors have been associated with cough in certain patients.

Patients are also able to self-monitor blood pressure. They can be taught home blood pressure monitoring with manual or automatic equipment. Learning to monitor blood pressure will empower patients and may increase compliance with therapy. The blood pressure readings also provide a useful tool for evaluating 24-hour effectiveness of antihypertensive therapy, and may help identify orthostatic hypotension.

Conclusion

ISH is a risk factor for cardiovascular disease. Lowering SBP with antihypertensive agents in elderly patients with ISH has decreased cardiovascular morbidity and mortality. In patients without contraindications, diuretics and beta-blockers should be preferred first line agents to treat ISH in the elderly. The literature supports

the use of diuretics and the combination of diuretics and beta-blockers to decrease morbidity and mortality in elderly patients with ISH. However, concomitant disease states may dictate the choice of an alternative agent over these two groups of drugs. Without adversely affecting their quality of life, elderly patients should be treated with lifestyle modifications and antihypertensive agents to decrease their risk of cardiovascular morbidity and mortality from ISH.

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Maryland women living with HIV/AIDS

ABSTRACT: *Approximately one-quarter of the acquired immunodeficiency syndrome (AIDS) cases reported in Maryland are women. African-American women account for 80% or more of the cases in the Baltimore-Metropolitan area. Human immunodeficiency virus (HIV)-positive women are frequently dealing with a constellation of social problems including lack of resources, care-taking responsibilities for extended families, histories of substance abuse, and loss of others to AIDS. This article is an attempt to describe the social context of living with HIV/AIDS to Maryland physicians.*

Who are the women living with HIV/AIDS? The percentage of women diagnosed with AIDS has been increasing steadily every year since the epidemic was recognized. In 1995, 25% of the newly-diagnosed cases of AIDS in Maryland were among women, compared to 15% in 1989. More than 80% of these reported AIDS cases were in African-American women.

In 1994, AIDS was the third leading cause of death (behind cancer and injuries) among all American women 25 to 44 years old. In African-American women, AIDS is the leading cause of death (one out of every five deaths) in this age range.

HIV/AIDS is much more than a disease; it is a cultural phenomenon. HIV/AIDS has touched American lives through the legal system, television, movies, and books. It has lead many to question society's morals and ethics. HIV/AIDS has become the most litigated disease in history. Unlike any other laboratory test, a patient in Maryland needs to sign a separate informed consent form prior to being tested for HIV. In addition, lab slips also require a unique identifier to assist the state in gathering statistical information. Numerous books, plays, and movies have focused on HIV/AIDS. Tom Hanks, a prominent Hollywood actor, received an Academy Award for his portrayal of a lawyer with AIDS in the movie *Philadelphia.*

HIV/AIDS is also a political disease. Early in the epidemic, ACT UP, an activist organization was founded by gay and lesbian groups to encourage awareness, research, and funding. ACT UP is considered to be the largest social movement organization ever created around an epidemic in the history of medicine. The Food and Drug Administration's processing of drug approval for AIDS therapy has advanced rapidly, in large part due to the pressure and efforts of ACT UP.

In 1981, an unusual disease called GRID (Gay Related Immune Deficiency), affecting Caucasian male homosexuals, was reported in the United States. Clusters of homosexual men with compromised immune systems and Kaposi's sarcoma baffled physicians on the West and East coasts of the United States. In 1983, AIDS cases were reported among women whose steady sexual partners were men in high-risk groups, suggesting the possibility of heterosexual transmission.

HIV/AIDS is no longer a disease of Caucasian male homosexuals. In Africa, Asia, and other Third World areas, heterosexual sexual transmission is, and has always been, the leading mode of HIV-infection. In Africa, the male to female ratio of HIV/AIDS infection is almost 1:1, while in the United States the ratio was 13:1 in 1987, and 6:1 in 1995.

Drug use and sexual exposure from an infected male are the major routes of transmission of HIV-infection in American women. In approximately 60% of AIDS cases in Maryland women, the route of transmission is injection drug use. Heterosexual transmission accounts for one-third of the cases. Heterosexual transmission of HIV is highest in locations where drug use is high, in minority populations, and in young adults. Infection rates from drug use and heterosexual exposure are increasing each year.

In an attempt to put a face on the women living with HIV/AIDS in Maryland, a group of seven HIV-positive

females were invited to a lunch-time discussion. They were informed that the purpose of the discussion was to personalize the lives of women with HIV/AIDS for a publication read by Maryland physicians.

The discussion was focused on several key questions:

- What are some words that describe or define who you are?
- Discuss the circumstances surrounding the discovery of your HIV-infection.
- How has being infected impacted your life?
- What do you want physicians to know about the medical care of women with HIV?

Although the format of the discussion was an interactive roundtable, the women's stories are presented individually to provide insight into the lives of some of Maryland's HIV-positive women.

Nina

Nina is a 38-year-old African-American female. Nina described herself as: "out-going, love people and children, concerned about life as an HIV-positive mother. . . ." Nina found out about her HIV status in October 1993, when she was sick during her pregnancy. In the past, she has been treated by conization for cervical cancer.

Her CD4 cell count is currently 230 and Nina is pregnant again, at six weeks gestation. When she tried zidovudine (AZT), she found it disagreeable and experienced side effects that included complexion changes and nail discoloration. She plans to continue her pregnancy without taking AZT. (She indicated an awareness of ACTG 076. This study showed the use of zidovudine reduced the rate of perinatal transmission of HIV by two-thirds.)

Nina talked mostly about her 12-year-old daughter, Tasha. Tasha has recently begun failing at school and has been rebellious at home. Nina described her as a bright child who is "12-years old trying to be 21." She is very concerned about her daughter and found little support when she tried to speak with people at Tasha's school.

Rose

Rose is a 34-year-old African-American female. Rose found out she was HIV-positive in 1985 when she went to a physician for what she thought was the flu, and was advised to be tested for HIV. Rose has also been treated by conization for cervical cancer. Her CD4 cell count is now 17. Rose happily relates that she has been infected for 11 years with no opportunistic infections. She takes AZT and DDI.

Rose is the primary caretaker of an extended family that includes a 4-year-old granddaughter, her children (an 18-year-old daughter and 15-year-old son), and her grandmother who is 67-years old. Rose's daughter is pregnant, and although she got pregnant on purpose, she does not want the baby. Rose has had actual fist fights with her daughter and says, "You don't want your girl to repeat what you did. I have a stressful house. Sometimes I want to go out in the yard and scream. But I can't; the household is on me. I have to deal with myself; I don't have the time to think about being ill."

Denise

Denise is a 40-year-old African-American female. She was introduced to a man by a friend who knew the man was sick, but failed to tell Denise. When Denise became aware that her partner was HIV-positive she was tested. She is angry that she was not told of her partner's HIV status and that she was denied the choice of exposure. When she found out she was HIV-positive, her biological brother was also living with HIV. She decided she did not want to burden her mother with her HIV status, but discussed it with a "friend" who then told others, including her mother.

She prays everyday that a cure will be found. She faces her life head-on, "taking the bitter with the sweet." Her current CD4 cell count is 272. She is living with HIV-infection, not AIDS.

Beverly

Beverly is a 34-year-old African-American female. Beverly found out that she was HIV-positive in 1985 when she was sick, using drugs, and 7 months

pregnant. She had a medical appointment the day prior to this group discussion and found out her T-cells had dropped from 1100 to 550. She related that the physician's discussion concerning her failure to receive medical care and/or evaluation during the past year upset her. She felt that she was being lectured to, and was not an active participant in a discussion about her illness. The change in her absolute T-cell count upsets her and she is working through this. She is also researching the possibility of switching to a holistic doctor.

Beverly shared that she would like to become pregnant. Beverly has three children: a daughter who is 15-years old, a son who is 11-years old, and a younger daughter. She wants to have another child because it is her choice. Her life goes on knowing that she is HIV-infected. She was a drug addict and HIV-positive through one pregnancy.

Beverly's 15-year-old daughter, Carla, accompanied her mother. Carla was invited to speak and shared the following: "I don't have many friends because I feel better being to myself. And I have a father that has AIDS too . . . It's like you, Carla, all by yourself. I don't have many friends and the little bit of friends I do have, I don't really talk to them and I don't talk to my mama. Like I have nobody to talk to but myself and God."

Kim and Erica

These two women have used the knowledge of being HIV-positive to work with other HIV-positive people.

Kim is a 35-year-old African-American female. She describes herself with the words: "mother, a child of God, and helper." Kim was tested for HIV when her husband was hospitalized for phencyclidine (PCP) ingestion management and was diagnosed with AIDS. She was pregnant at the time. Kim states, "HIV has been a very positive thing for me." Her HIV-positive status gave her a battle to fight. She is committed to being a voice for women who are still unable to discuss HIV.

Erica is a 44-year-old African-American female. The words she wrote to describe herself are "concerned citizen and advocate." She discovered that she was HIV-positive when her partner tested positive. The hardest impact of AIDS on her life was being advised not to work. Her current CD4 cell count is 4. Erica continues to be an active AIDS advocate.

Francine

Francine is a 48-year-old African-American female. Francine went for an HIV test in 1985 when she saw people close to her dying from AIDS. At the time of her diagnosis she was homeless and using drugs. She credits HIV with "turning on a light" in her life. "It had a profound impact on who I was. It grew me up." It steered her upon a discovery process that lasted for two years; spirituality and survival are central to her life. These have been hard times especially since her son was murdered. She knows she is a survivor, and she wants to assist other women.

There are several key points that these HIV-positive patients want physicians to know:

1) Be willing to hear the needs of HIV-positive people. Listen and allow patients to participate in the decisions made concerning their care. Stay educated about the disease.

2) Stop asking, "How did you get this?" There are no innocent victims.

3) Education needs to target youth. Young people are vulnerable, bold, act on emotions, and tend to have no fear.

4) Females need to be taught to be assertive about condom use. Women are afraid of losing a relationship. They feel that they have sole responsibility for protecting themselves in a sexual relationship, while there should be shared responsibility with their partners.

5) There is not enough support for families and children affected by HIV/AIDS. The women who were mothers are concerned about their children. They are frustrated that their children are repeating be-

haviors similar to those experienced during their youth. There is a need to work with families and children when a parent is HIV-infected. The disease impacts those affected as well as those infected by HIV.

All of the women in our discussion revealed a basic mistrust of health care providers. An extension of the mistrust is suspicion about AZT and other medical treatments. This mistrust and resistance presents a continuous challenge to health care providers. Women need a supportive, interactive environment where they feel accepted. In today's medical model, not all physicians can provide this level of care; therefore, it is important to use referral options.

Maryland has free, anonymous or confidential HIV counseling and testing sites. Information on the location of sites can be obtained from the Department of Health and Mental Hygiene (DHMH) at 410-767-5018. For physicians who want to offer HIV testing in their office, guidance is also available from DHMH or your local health department. There are innovative programs in Maryland for women with HIV/AIDS. These programs include Chase Brexton Clinic (410-837-2050), the Women's Initiative for HIV Care and Reduction of Perinatal Transmission at The Johns Hopkins Hospital (410-955-6414), S.T.A.R. (Sisters Together and Reaching, 410-383-1903), and the University of Maryland (410-328-5725). Local health departments are also good resources for educational materials and referral resources.

RANDY BERGER, M.D.
Dr. Berger is director, Division of AIDS Services, Baltimore County Health Department

Acknowledgment

Many thanks to the AIDS Division staff: Diane Brzezenski, Ilene Foster, Ann Marie Lydic, and Marion Odubiyi. Sandra Dean was nice enough to arrange for my meeting with the women in the article. Statistics for Maryland were given by Jan Markowitz, Maryland Department of Health and Mental Hygiene. ■

Medical Care of Women in the Era of HIV Disease

A THREE-SESSION breakfast series on "Medical Care of Women in the Era of HIV Disease" will give physicians within busy practice settings successful strategies for providing HIV antibody testing and appropriate HIV therapy to women. Session I will focus on the neonatal period and will be valuable to obstetricians, labor and delivery nurses, neonatal providers and hospital clinical pharmacists. Sessions II and III will focus on preconceptual and premenopausal health care, including pregnancy options and management of HIV disease in women, and will be useful to all providers of women's health care.

This series will be held from 7:00 a.m. to 9:00 a.m., December 4, 1996, January 15, 1997, and February 5, 1997, at the Med Chi Faculty Building, 1211 Cathedral Street, Baltimore. Each session may be attended independently for $15 per session, or you may enroll in all three for $40. CME credits are available. To receive additional information, or to register, call Med Chi at 410-539-0872 or 800-492-1056.

The Finneys of Baltimore: and the trumpets sounded



Figure 1. John M. Finney, M.D.

As the Medical and Chirurgical Faculty of Maryland (Med Chi) approaches its 200th birthday, some of its history can be recalled in biographies of pioneer members, who sowed seeds for the future of great medicine. Among these pioneers are physicians from the Finney family, who for more than 100 years have served both Maryland and Med Chi.[1-5]

The Finney family stems from Scotch-Irish Presbyterian ancestors who lived in the neighborhood of Belfast, Ireland. From there, in 1712, Robert and Dorothea Finney emigrated to Chester County, Pennsylvania. Among Robert and Dorothea's children was William, whose line continues in the Finneys of Baltimore. William's son Walter served with distinction in the Revolutionary War, and afterwards, became an associate judge in Chester County.

Walter's son, William, born in 1788, studied for the ministry at Princeton. After graduation in 1809, he was ordained in the Presbyterian Church. In 1812, William accepted a call to Deer Creek Church, in Harford County, Maryland, where he ministered for 44 years. At William's initiative, the town was renamed Churchville, and he and his wife, Margaret, lived there with their six children. Harford County remained the Finney family's habitat for several generations.

William's son John (**Figure 1**), studied medicine at the University of Pennsylvania, and graduated in 1847. He then set up practice as a country doctor near Churchville.

William's second son, George, was grandfather of Dr. James McCormick Finney, who graduated from Princeton in 1937 and received his medical education at Johns Hopkins, finishing in 1941. Following service in the Navy as a medical officer, Dr. James Finney continued his surgical training at Baltimore's Union Memorial Hospital, and served as a surgical fellow at the Memorial Hospital in Easton, Maryland. Dr. Finney then returned to Harford County, where he practiced for 20 years.[6]

Another of William Finney's sons, Ebenezer, born in 1825, attended West Nottingham Academy, Lafayette College, and Washington College (later, Washington and Lee College) before graduating from Princeton Theological College in 1852. After a short period of pulpit-supply preaching, he ministered at a church in Bel Air (Harford County) for three years.

Ebenezer then decided to settle near Natchez, Mississippi, along with a number of other Marylanders. While he was the minister of the Greenwood Presbyterian Church there, he met Annie L. Parker, who became his wife and bore him two sons. In 1863, five months after the birth

Other Honors of John M.T. Finney, Sr., M.D.

- Distinguished Service Medal from the United States of America
- Commandeur de l'Ordre de la Couronne of Belgium
- Officiere de la Legion d'Houneur of France
- Life Trustee at Princeton University
- Chairman of the Board of Trustees of Gilman Country School
- Chairman of the Board of Trustees of Lincoln University, Oxford, Pennsylvania
- Member of the Board of Elders of Brown Memorial Presbyterian Church
- Chairman of the Baltimore Chapter of the American Red Cross
- Bigalow Medal for the Advancement of Surgery from the Surgical Society of Boston

Honorary member of

- Medical Society of London
- Hunterian Society
- Royal College of Surgeons of England
- Royal College of Surgeons of Ireland
- Royal College of Surgeons of Edinburgh
- LLD from Tulane University
- LLD from Harvard University
- LLD from Loyola College of Baltimore

of the second son, John M.T. Finney, Ebenezer's wife died. Following the Civil War, the father returned north. In 1872, he was again called to a church in Bel Air, where he was to minister for 23 years, until his retirement.

Ebenezer's son, John, in the care of foster mothers, first lived in Winchester, Illinois, then returned to Churchville. After his preliminary education in Bel Air, he entered Princeton as a sophomore, and graduated in 1884.

At Princeton, football was one of his major interests. He made his class squad in his first year and the varsity team in the two remaining years. After entering Harvard's medical school, he made that university's team in his first year. He thus had the unusual distinction of having played football at two universities, a record that has probably never been equaled.



Figure 2. John M.T. Finney, Sr., M.D.

After contracting typhoid fever, John M.T. Finney lost one year at Harvard. He was able to graduate in 1888 and was then appointed to the resident surgical staff, and served for 18 months. From there, he came to The Johns Hopkins Hospital, where initially he administered anesthesia in the mornings and worked in the dispensary and laboratory in the afternoons.

Dr. Finney began private practice in 1890 but continued his work at the hospital. As he did not have operating privileges for his private patients at Johns Hopkins, he initially operated on these patients in their homes. As his practice grew, he turned to the Union Protestant Infirmary (subsequently, the Union Memorial Hospital). About this time Dr. Finney joined Med Chi.

During the absence of Dr. Halsted, then head of Johns Hopkins surgical service, Dr. Finney acted as head of the surgical service. In 1898, he became associate professor, then in 1912, professor of clinical surgery. He headed the surgical clinic from 1899 to 1914. During these years, Dr. Finney turned down a professorship at the University of Texas at Galveston, then another at Harvard.

Following Dr Halsted's death, The Johns Hopkins Hospital offered his position, surgeon-in-chief, to Dr. Finney. Dr. Finney (**Figure 2**) refused to accept the offer on a permanent basis but held the position from 1922 to 1925 when a replacement was found. Dr. Finney's talent lay in clinical surgery and in the direct care of his patients. He was a strong



Figure 3. John M.T. Finney, Jr., M.D.



Figure 4. George G. Finney, Sr., M.D.

organizer, and when the American College of Surgeons was formed in 1913, Dr. Finney was its first president.

In 1898, Dr. Finney joined the staff of the Commander of the Maryland National Guard, with the rank of major. At the start of World War I, Dr. Finney joined the United States Medical Reserve as a first lieutenant. Early in the winter of 1917, 32 medical students were enlisted from The Johns Hopkins Medical School as part of the formation of Base Hospital Eighteen. As director of the Hopkins unit, Dr. Finney rose to major, and by the end of the war, had advanced to the rank of brigadier general. He would later become Surgeon-General on the Governor of Maryland's staff.

In June of 1917, Dr. Finney's unit sailed to join the First Division of the American Army. Once in France, Dr. Finney was quickly elevated to Chief Consultant to the American Expeditionary Force.

Of the medical students, 30 had completed three years at Johns Hopkins, and two (including one of Dr. Finney's sons) had completed two years. By agreement with the university authorities, the 30 received medical degrees at the end of an additional year at the base hospital, and were commissioned as first lieutenants in the medical corps. The two second-year students would eventually return to Johns Hopkins to complete their training.

Dr. Finney was father of three sons and a daughter. His two older sons became surgeons.

John, Jr., (**Figure 3**) graduated from Princeton in 1915, and The John Hopkins Medical School in 1919. He completed his internship and residency in surgery at Baltimore's Union Memorial Hospital, after which he practiced general surgery with his father and brother in Baltimore. He was a member of Med Chi, and of the Baltimore City Medical Society, the latter of which he was president in 1950. Certified by the American Board of Surgery, he was also a member of the American College of Surgeons, a member and vice president of the Southern Surgical Association, and a founder of the Eastern Surgical Society, serving as president for one term.

Like his father, John, Jr., was civic minded. He was vice chairman of the board of trustees of the McDonogh school, and a trustee of the West Nottingham Academy in Pennsylvania. He served as president of the Baltimore Council of Boy Scouts from 1943 to 1949. In 1946, the Baltimore Area Council gave him the Silver Beaver Award. In 1954, the national organization presented him with the Silver Buffalo award for distinguished service.[7,8]

George, the second son (**Figure 4**), graduated from Princeton in 1921 and then The Johns Hopkins Medical School in 1925. After an internship at Union Memorial Hospital, he completed a surgical residency at Hopkins. For his World War II service in the Pacific Theater of Operations as commanding officer of the 18th General Hospital, Dr. George Finney received the legion of Merit.

Other Finney Surgeons in Succeeding Generations in Baltimore

- William, the son of John, Jr., is a board-certified neurosurgeon
- George, Jr., the son of George Sr., was a board-certified general surgeon
- Daniel, the son of Eben, is a board-certified general surgeon
- Redmond, the grandson of George, Sr., is a board-certified cardiac surgeon



Figure 5. Dr. Finney, Sr., at right and his three sons, John, Jr., George, and Eben (L to R), shortly after WWI.

A colonel, he subsequently became the chief consultant in surgery to the Tenth Army.

Dr. George Finney was a member of Med Chi. He served as chairman of the American College of Surgeons' Board of Governors, which awarded him its distinguished service award in 1971. He was president of the Southern Surgical Association in 1959. Dr. Finney was also active in the American Surgical Association, and in the Society of University Surgeons.

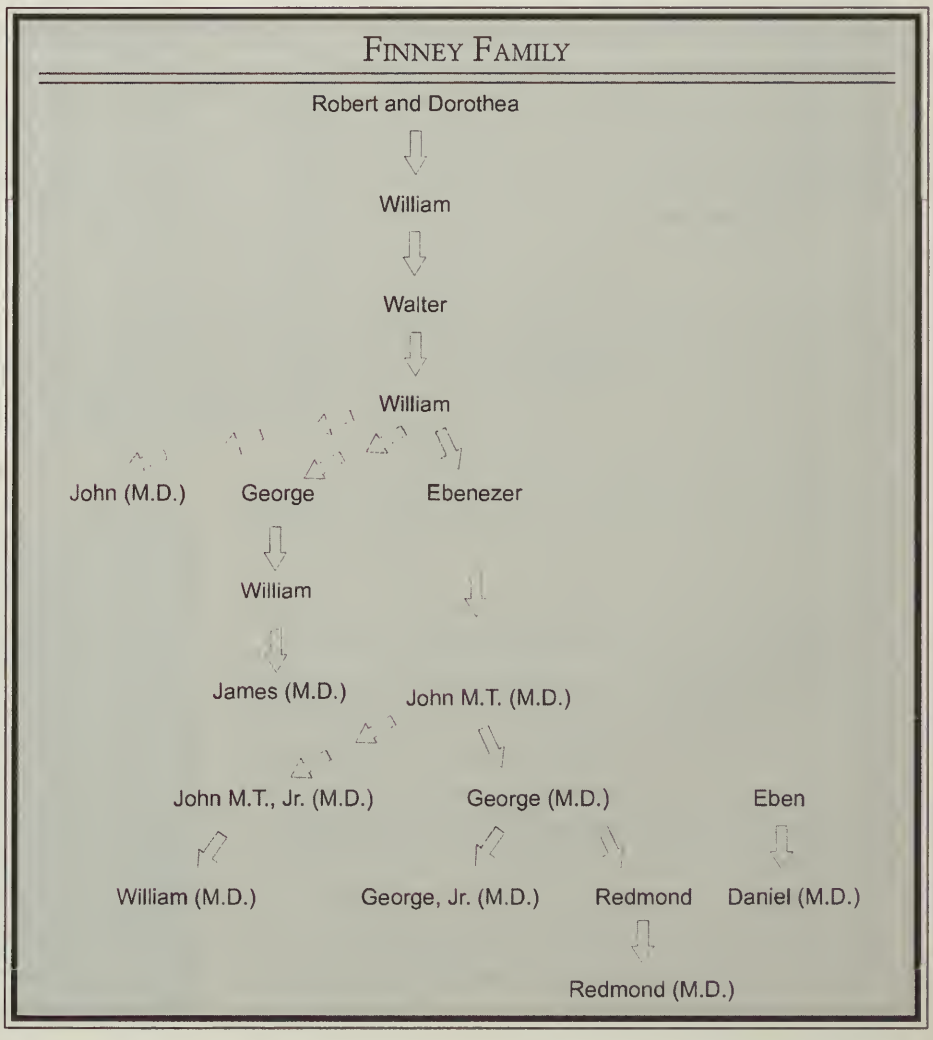
Like his older brother, Dr. George Finney served as president of the Baltimore City Medical Society. He was a founding member of the Baltimore Academy of Surgery. Dr. Finney served on the Medical Board of the Maryland Branch of the American Cancer Society and on the executive committee of the Baltimore Chapter of the American Red Cross.[9] He was also an elder for the Brown Memorial Presbyterian Church.

The contributions of Dr. John M.T. Finney and of his sons (**Figure 5**), John Jr., and George, to Baltimore medicine, to Med Chi, to Union Memorial Hospital, to Provident Hospital, and to the community in general have become increasingly evident since their deaths. They embraced the essence of giving, and charity was their guide. Some 300 years ago, John Bunyan penned the words spoken by Mr. Valiant-for-truth, when he was told that he was about to die. "My sword shall I give to him that shall succeed me . . . , and my courage and skill to him that can get it. All of the trumpets sounded for him on the other side."[10]

JOSEPH M. MILLER, M.D.
Dr. Miller is a retired surgeon in Timonium, Maryland.

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Acknowledgement

I am indebted to Mr. John M.T. Finney, III for his help in gathering some of this material. He also very graciously supplied all of the photographs. ■

Worth Repeating

Athenian: It's just the same with doctors [as with legislators], you know, when we're ill: one follows one mode of treatment, one another. Let's recall the two methods, so that we can make the same request of the legislator that the child might make of its doctor, to treat him as gently as possible. You want an example? Well, we usually speak, I think, of doctors and doctors' assistants, but of course we call the latter "doctors" too.

Cleinias: Of course.

Athenian: And these "doctors" (who may be free men or slaves) pick up the skill empirically, by watching and obeying their masters; they've no systematic knowledge such as the free doctors have learned for themselves and passed on to their pupils. You'd agree in putting "doctors" in these two categories?

Cleinias: Of course.

Athenian: Now here's another thing you notice. A state's invalids include not only free men but slaves, too, who are almost always treated by other slaves who rush about on flying visits or wait to be consulted in their surgeries. This kind of doctor never gives any account of the particular illness of the individual slave or is prepared to listen to one; he simply prescribes what he thinks best in the light of experience, as if he had precise knowledge, and with the self-confidence of a dictator. Then he dashes off on his way to the next slave-patient, and so takes off his master's shoulders some of the work of attending the sick. The visits of the free doctor, by contrast, are mostly concerned with treating the illnesses of free men; *his* method is to construct an empirical case-history by consulting the invalid and his friends, and in this way he himself learns something from the sick and at the same time he gives the individual patients all the instruction he can. He gives no prescription until he has somehow gained the invalid's consent; then, coaxing him into continued cooperation, he tries to complete his restoration to health. Which of the two methods do you think makes a doctor a better healer, or a trainer more efficient?

Source: Plato. *The Laws. Book Four.* Harmondsworth, England: Penguin Books;1970:180-181.

Submitted by Gerald D. Klee, M.D., who received it from Kenneth Zierler, M.D., who received it from Francis Chinard, M.D., who received it from Plato.

BOOK REVIEW GUIDELINES

Please keep the following points in mind when reviewing any book for the Maryland Medical Journal.

▼

Substance. Main idea.

▼

Background/expertise of author.

▼

For whom is the book meant?
Who is the intended audience?

▼

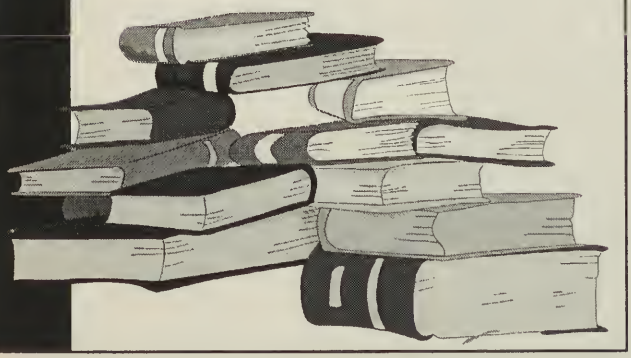
Importance for physician.

▼

Presentation of book —
readability, style, organization.

▼

Thank you for your assistance.



Call for Instructive Case Reports

The editors of the *Maryland Medical Journal* believe all practicing physicians—generalists and specialists alike—are a fertile source of instructive, experienced-based clinical anecdotes. The most memorable anecdotes illustrate the art as well as the science of medical practice; they teach a lesson that goes beyond the "facts" of the case.

We therefore invite readers to submit case reports describing a specific diagnostic or treatment challenge, how it was resolved, and what practical lesson(s) it imparts.

Think of the cases you have related to collegues—how a particular set of circumstances may have had a different outcome had you not remembered what? . . . tried what? . . . observed what? Examples might involve a new treatment or intervention, drug-drug or drug-food interactions (favorable or unfavorable), misleading patient histories, miscommunications, unlikely etiologies, occult exposures, patient noncompliance. Neither the lesson nor the facts need be novel; they should, however, be worth repeating.

We encourage all physicians (including interns, residents, and those who have retired from practice) to consider contributing to what we hope will become a fertile exchange of clinical wisdom.

Submission Requirements

The body of the report should comprise approximately 600 words. The text should be divided into three sections (presentation; investigations, treatment, and outcome; and discussion). The number of references should be limited to six. One illustration (table, figure, photograph, roentgenogram, etc.) is encouraged, but not mandatory. At least one author must have been personally involved in the patient's care during the events described. Only original, unpublished material should be submitted.

The Johns Hopkins Medical Institutions

All courses at the Thomas B. Turner Building unless otherwise indicated. For information on continuing medical education activities, contact the Office of Continuing Medical Education, 720 Rutland Ave., Baltimore, MD 21205 (410-955-2959).

MGA\MGS series, Department of Mental Hygiene, The Johns Hopkins University, School of Hygiene and Public Health, Keswick Nursing Center, 40th Street, 6:00 -7:00 p.m., light refreshments served at 5:30 p.m. Credits: TBA. Sponsored by the Maryland Chapter of the American Geriatrics Society (AGS) and the Maryland Geontological Association (MGA), with assistance of the Geriatrics Committee of the Maryland Academy of Family Physicians. Info: Donna Meisel Weinreich, 410-675-3244 (e-mail:dmeisel@umabnet.ab.umd.edu) or Joseph J. Gallo, M.D., M.P.H., 410-955-0599 (e-mail:jgallo@welchlink.wlech.jhu.edu).

Managed care and the elderly: opportunities and challenges	**Dec. 10**
TB prevention in long-term care	**Feb. 18**
Perioperative management of the elder adult	**Mar. 11**
Pain management in the older adult	**Apr. 29**
Preventive geriatrics	**June 17**

Seventh annual neurology for the primary practitioner, Harbor Court Hotel, Baltimore, MD. Credits: TBA. Fee: $135/physicians; $85/ residents, fellows, allied health professionals. **Dec. 14**

Frontiers in research and clinical management of asthma and allergy, Johns Hopkins Asthma and Allergy Center, 5501 Hopkins Bayview Circle. Credits: AMA Cat 1 credits, AAFP. Fee: $395/physicians; $275 residents, fellows, allied health professionals. Sponsors: the Division of Allergy and Immunology, the Division of Pulmonary and Critical Care Medicine, and the Asthma and Allergy Foundation of America, Maryland Chapter. **Jan. 17–19**

Comprehensive endoscopic sinus surgery, Sponsor: Dept. of Otolaryngology, Head and Neck Surgery, Johns Hopkins Medical Institutions. **Registration is limited.**

Basic endoscopic sinus surgery. Hands on laboratory program. Up to 9 AMA Cat 1 credits. Fee: $895/ lab and lecture; $350/ lecture only.	**Jan. 23**
Advanced endoscopic sinus surgery. Hands on program for surgeon who has performed at least 25 cases. Up to 19 AMA Cat 1 credits. Fee: $1495/ lab and lecture; $550/ lecture only.	**Jan. 24–25**

14th annual gastroenterology update: multidisciplinary approach — an exercise in interactive gastroenterology, Silvertree Hotel, Snowmass Village/Aspen, Colorado. 19 Cat 1 AMA credits. Fee: $495/physicians; $375/residents, fellows, allied health professionals. **Feb. 9–14**

Perioperative management: a course designed for practitioners to limit patient risk by proper pre- and postoperative evaluation and care, Marriott's Marco Island Resort and Golf Club, Marco Island, Florida. Credits: 20.5 AMA Cat 1 credits; 20 CE credits by the AANA. Fee: $525/physicians (After Feb. 9, 1997: $550); $490/residents, fellows, and CRNs (After Feb. 9, 1997: $515). **Mar. 9–12**

Management of auditory and vestibular disorders and vestibular practicum, Credit: TBA, Fee: $400/physician; $300/residents, fellows, allied health professionals. Practicum: $75. **Mar. 12–13**

The Johns Hopkins Medical Institutions (continued)

Diagnosis and treatment of neoplastic disorders, Sponsor: The Johns Hopkins Oncology Center. Credits: 14 AMA Cat 1. Fee: $300/ Advanced registration (before Feb. 1); $325 (Postmark Feb. 1 and after); $150/ residents, fellows, allied health professionals. **Apr. 3–4**

38th annual postgraduate institute for pathologists in clinical cytopathology, Sponsor: The Johns Hopkins University School of Medicine. Credits: 94.5 AMA Cat 1 plus up to 10 hrs. video instruction. Fee: $2,450/ physicians; $1,300/ senior residents.

Course A (Home study) **Mar.–Apr.**

Course B, concentrated lecture and laboratory studies, Johns Hopkins Medical Institutions, Baltimore, MD. **Apr. 14–25**

Update on Alzheimer's disease and other dementias, Renaissance Harborplace Hotel, Baltimore, MD. Up to 7 Cat 1 AMA credits. Fee: $145/physicians; $110/ psychologists in practice; $90/residents, fellows, allied health professionals. **Apr. 12**

Advanced pediatric life support courses, 21 Cat 1 AMA credits. Fee: $595. **Jun. 9–11**

Continuously throughout the year

Visiting preceptorship in pediatric critical care medicine. Ongoing five-day preceptorship by appointment. 40 Cat 1 AMA/PRA credits. $600.

The department of radiology and radiological sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams, 410-955-3169.

Visiting physicians. Offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. 40 Cat 1 AMA/PRA credits. $500.

Johns Hopkins medical grand rounds. Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics per year in five bimonthly programs. Individual and group subscriptions. 40 Cat 1 AMA/PRA credits. Info: 410-955-3988.

Johns Hopkins sports medicine grand rounds. Accredited continuing education series of presentations on sports medicine topics applicable to primary care and orthopaedic surgery. Discussions first Thursday of each month. Info: Amy Taylor, 410-383-0600.

University of Maryland School of Medicine

For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (410-706-3956) or by calling the phone number listed after a specific program. FAX 410-706-3103.

Why brain attack now?, Aberdeen, MD. 1 Cat 1 AMA credit. Fee: $15. Info: 1-800-373-4111.

Promising new treatments in esophageal cancer, Columbia, MD. 1 Cat 1 AMA credit. AAFP prescribed. Fee: $15. Info: Cathy Johnson, 1-800-373-4111. **Dec. 11**

Dec. 18

Self-Directed CME Activities

Disease management of lipid disorders (audio tape and test), 1 Cat 2 AMA credit. Expires 6/97. Info: Sharon Stenhouse, 410-706-3936.

CD-ROM based interactive multimedia radiology teaching file for Mac or PC w/single user licenses (SUL), site licenses (SL), or multisite licenses (MSL), 60 Cat 1 AMA credits. Expires 4/98. Fee: $149/SUL, $395/SL, $595/MSL. Info: Lorraine Smith, 410-528-8502. **Oct. 24–26**

University of Maryland School of Medicine (continued)

Academic rounds and conference, each academic department within the school of medicine has a series of lectures and/or seminars available to physicians. Cat 1 AMA credits available. Info: 410-706-3956.

Miscellaneous

Delmarva Foundation for Medical Care, Easton, MD. 3 Cat 1 AMA credits. Info: Roxanne Rodgers, 410-822-0697

Health care improvement for physicians	**Dec. 13**
Health care improvement for physicians	**Dec. 14**
Health care improvement for physicians	**Jan. 17**
Health care improvement for physicians	**Jan. 18**
Health care improvement for physicians	**Jan. 29**

Medical care of women in the era of HIV disease (three-part series), The Medical and Chirurgical Faculty of Maryland, 1211 Cathedral St., Baltimore, MD, 7:00 -9:00 a.m., Credits: Maximum of 6 Cat 1 AMA credits available. Fee: $15/session; $40/series.

HIV in the perinatal period	**Dec. 4**
Successful patient education and counseling strategies for the busy practitioner	**Jan. 15**
Clinical management of the HIV-positive woman	**Feb. 5**

Office of Continuing Medical Education, Washington University School of Medicine, Campus Box 8063, 660 South Euclid Ave., St. Louis, MO 63110-1093. Unless otherwise noted seminars will be held at the Washington University Medical Center, Eric P. Newman Education Center (EPNEC), 320 S. Euclid Ave., St. Louis, MO 63110. Info: Cathy Sweeney, 1-800-325-9862, FAX: 1-314-362-1087.

Bipolar mood disorder in clinical practice, The Ritz-Carlton Hotel, St. Louis, MO. Maximum 6.5 Cat 1 AMA credits. Fee: $40.	**Dec. 7**
Internal medicine review, Monday evenings, The Jewish Hospital.	**Mar.–May**
Integrated care of the thoracic surgery patient: a seminar for allied health professionals.	**Mar. 21–22**
Clinical pulmonary update.	**Apr. 4–5**
Refresher course & update in general surgery. The Ritz-Carlton Hotel, St. Louis, MO.	**Apr. 10–12**
11th annual frontiers in endourology: reconstructive endourology: percutaneous, ureteroscopic, and laparoscopic techniques.	**Jun. 27–29**
4th annual current topics in cardiothoracic anesthesia	**Sept. 5–7**
Contemporary cardiothoracic surgery	**Sept. 18–20**

Cutaneous melanoma '96: a clinical symposium for primary care practitioners, sponsored by The Skin Cancer Foundation and Memorial Sloan-Kettering Cancer Center, Memorial Sloan-Kettering Cancer Center, New York, NY. 6.5 Cat 1 AMA credits. Info: Ludmilla Popoff, 212-639-6754. **Dec. 7**

Thirteenth annual CME clinical update in pulmonary medicine, Trump Plaza Hotel and Casino, Atlantic City, NJ. Sponsored by the department of pulmonary medicine, Deborah Heart and Lung Center. CME accreditation by Medical Society of New Jersey. AAFP and AOA credits. Fee: $225. Info: Roberto Silver, 201-385-8080. **Dec. 7**

Miscellaneous (continued)

24th Annual Williamsburg conference on heart disease, sponsored by the American College of Cardiology, Williamsburg Lodge, Williamsburg, VA. 18.5 Cat 1 AMA credits. Info: 1-800-253-4636, ext. 695. **Dec. 8–11**

Clinical innovations in OB/GYN ultrasound, Renaissance Waverly Hotel, Atlanta, GA. Sponsors: Foundation for Health Education and Medical Education Collaborative. 15 Cat 1 AMA credits. Fee: $595/physicians; $475/residents, sonographers, allied health professionals. Info: 555 Route 1 South, Iselin, NJ 08830, 800-599-8878. **Jan. 17–18**

Essentials of prostate & genitourinary imaging, Marriott's Orlando World Center Resort, Orlando, FL. Sponsors: Foundation for Health Education and Medical Education Collaborative. 13 Cat 1 AMA credits. Fee: $595/physicians; $475/residents, sonographers, allied health professionals. Info: 555 Route 1 South, Iselin, NJ 08830, 800-599-8878. **Jan. 17–19**

The modern medical and surgical treatment of cardiac heart failure, The Baltimore Museum of Art, Baltimore, MD. Sponsored by Helix Health Care at the Union Memorial Hospital. Info: Laurie Russell, 410-554-6523. **Jan. 22**

Cardiovascular conference at Snowshoe, Mountain Lodge Conference Center, Snowshoe, WV, Sponsor: American College of Cardiology (ACC) , 14 Cat 1 AMA credits. Info: Registration Secretary, Extramural Programs Dept, ACC, 9111 Old Georgetown Rd, Bethesda, MD 20814-1699. 800-253-4636 ext. 695; FAX: 301-897-9745. **Feb. 3–5**

Reimbursement and managed care: essential reimbursement strategies in emergency medicine, Sponsor: the American College of Emergency Physicians (ACEP), Hyatt Regency, Baltimore, MD. 15 Cat 1 AMA credits, 15 Cat 1 ACEP credits. Info: 800-798-1822. **Apr. 3–4**

Getting control: effective procedure coding for emergency medicine, Sponsor: the American College of Emergency Physicians (ACEP), Hyatt Regency, Baltimore, MD. 15.5 Cat 1 AMA credits, 15.5 Cat 1 ACEP credits. Info: 800-798-1822. **Apr. 4–6**

Leadership conference, Sponsor: the American College of Emergency Physicians (ACEP), Stouffer Mayflower Hotel, Washington, DC. CME credits TBA. Info: 800-798-1822. **Apr. 6–7**

Legislative issues forum, Sponsor: the American College of Emergency Physicians (ACEP), Stouffer Mayflower Hotel, Washington, DC. CME credits TBA. Info: 800-798-1822. **Apr. 7–9**

Sixth annual meeting and clinical congress of the American Association of Clinical Endocrinologists (AACE), Marriott, Philadelphia, PA. Up to 36.5 Cat 1 AMA credits. Info: 904-353-7878. **Apr. 16–20**

56th annual American occupational health conference: discover the reality, Orange County Convention Center, Orlando, Florida. 39 concurrent scientific sessions, 42 postgraduate seminars, and 7 two-day training courses. Sponsors: the American College of Occupational and Environmental Medicine (ACOEM) in conjunction with American Occupational Health Conference (AOHC). Contact: Kay Coyne, ACOEM, 55 W. Seegers Rd., Arlington Heights, IL 60005, 847-228-6850, ext. 152; FAX 847-228-1856. **May 9–16**

Cardiovascular health: coming together for the 21st century — a national conference, Hyatt Regency, Embarcadero, San Francisco. Cosponsors: the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH), the California Cardiovascular Disease Prevention Coalition, and the Cardiovascular Disease Out- **Feb. 19–21, 1998**

Miscellaneous (continued)

reach Resources, an Epidemiology (CORE) Program, a joint project between the University of California, San Francisco, Institute for Health and Aging, and the California Department of Health Services. Contact: CORE Program, Dept. of Health Services, Mail Station 725, P.O. Box 942732, Sacramento, CA 942732, E-Mail: goliva@hw1.cahwnet.gov.

Self-Directed CME Activities

Maryland physicians' campaign against family violence, module one: domestic violence, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10, 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Maryland physicians' campaign against family violence, module two: child maltreatment, sponsored by the Medical and Chirurgical Faculty of Maryland and the Maryland Alliance Against Family Violence. Fee: $10, 4 Cat 1 AMA credits. Info: 410-539-0872. Expires September 5, 1997.

Continuously throughout the year

Fluorescein angiography conference, sponsored by the Retina Center of Maryland, Baltimore, MD. First and third Mondays of each month; 8:00–9:00 a.m. Fee: none. Info: C. Love, 410-337-4500.

Sinai Hospital of Baltimore medical grand rounds, Zamoiski Auditorium, Thursdays, 9:00 – 10:00 a.m. Info: 410-578-5528.

ARE YOU PROVIDING PRIMARY CARE?

What is your practice's standard of care for:

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- Breast cancer screening
- Cervical cancer screening

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The Medical and Chirurgical Faculty of Maryland is currently offering this program at the following locations/dates:

- December 5, 1996 at: ..... Union Hospital in Elkton, MD
- January 14, 1997 at: ..... Doctor's Community Hospital in Lanham, MD
- February 19, 1997 at: ..... Howard County General Hospital, Inc.

Call Carol Schwartz, Project Coordinator at: 1-800-492-1056 or 410-547-0915 to register or inquire further.

Parris N. Glendening - Governor of Maryland

Martin P. Wasserman, M.D., J.D., Secretary
Department of Health & Mental Hygiene

DHMH Maryland Department of Health & Mental Hygiene

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Epidemiology & Disease Control Program

EPIDEMIOLOGY AND DISEASE CONTROL PROGRAM
201 West Preston Street, Baltimore, Maryland 21201 (410) 767-6700

December, 1996
Vaccine Handling and Storage

To assure maximum vaccine efficacy, you and your staff must (1) **Assure vaccine potency** by appropriately handling and storing vaccine, and (2) **Assure that vaccines are administered by the route needed** for that particular vaccine (e.g., intramuscular, subcutaneous). Below are provided a list of "commandments" and a chart on vaccine handling and storage. Following these procedures will help you assure maximum vaccine potency.

The "TEN COMMANDMENTS" of Vaccine Handling & Storage+

1. Make one person responsible for monitoring vaccine. Have a person designated as backup.
2. Check and log refrigerator/freezer temperatures at least once each day.
3. "First In, First Out". Use the vaccine with the shortest expiration date first.
4. Do a hand count inventory at least once a month. This allows you to anticipate vaccine needs and to monitor vaccine usage.
5. Do not store any refrigerated vaccines next to refrigerator coils or in the freezer compartment where they may freeze. Stack vaccine neatly with an air space between stacks to allow cool air to circulate.
6. Store a small container of water in the freezer. If the water consistently remains frozen, then the freezer is functioning properly for OPV storage. (Chickenpox vaccine requires a colder temperature - small refrigerators with freezer compartments may not be appropriate).
7. Do not store vaccine in the refrigerator/freezer door.
8. Do not store food or drinks in the same refrigerator with your vaccine.
9. For practices receiving vaccine from the state Vaccines for Children program (VFC) - keep VFC vaccine in a separate area from your privately purchased vaccines.
10. When possible, contact the VFC program 3-months in advance of any short dated vaccines. Often, they may be used by practices with a higher patient volume.

VACCINE MANAGEMENT

Safe Handling of Vaccines[+,*]

Maryland Department of Health & Mental Hygiene
Epidemiology & Disease Control Program
Center for Immunization

Vaccine	Recommended Storage Temperature	Duration of Stability**	Normal Appearance	Other
Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP)	2°-8°C, **do not freeze.** As little as 24 hours at <2°C or >25°C may cause antigens to fall from suspension and be very difficult to resuspend.	Shelf life: check date on vial or container.	After shaking, a homogeneous white suspension. Should be inspected visually for particulate matter and discoloration prior to administration.	
Diphtheria and tetanus toxoids and pertussis vaccine adsorbed (DTP) DTP Hib combined	2°-8°C, **do not freeze.** Store refrigerated, away from freezer compartment.	Shelf life: check date on vial or container. After reconstitution: Until outdated, if not contaminated.	Markedly turbid and whitish suspension. If product contains clumps of material that cannot be resuspended with vigorous shaking, it should NOT be used.	Only Connaught DTP may be used to reconstitute the ACTHIB in the combined product. When reconstituting Hib with DTP check with manufacturer's package insert to determine time restrictions between reconstitution and use.
Haemophilus influenzae type b, conjugate	2°-8°C, **do not freeze.**	Shelf life: check date on vial or container. After reconstitution (if applicable): See manufacturer's package insert for timing of use and discard	Clear, colorless liquid. ***or*** Lyophilized: white to off-white powder. Reconstituted: after agitation, slightly opaque, white suspension.	Only Connaught DTP may be used to reconstitute the ACTHIB in the combined product. When reconstituting Hib with DTP check with manufacturer's package insert to determine the **time restrictions between reconstitution and use**.
Hepatitis A virus vaccine inactivated †	2°-8°C. Storage outside this temperature range may reduce potency. **Discard if vaccine has been frozen.**	Shelf life: check date on vial or container.	After thorough agitation, a slightly opaque, white suspension.	Shake vigorously before withdrawing each dose.

Vaccine	Recommended Storage Temperature	Duration of Stability**	Normal Appearance	Other
Hepatitis B virus inactivated (recombinant)	2°-8°C. Storage outside this temperature range may reduce potency. **Freezing substantially reduces potency.**	Shelf life: check date on vial or container.	After thorough agitation, a slightly opaque, white suspension.	Tap ampoule to ensure that solution is in the lower portion rather than in the neck of the ampoule. Discard any vaccine showing particulate matter, turbidity, or change in color. Engerix by SKB may be shipped without refrigerant for up to 96 hours as long as vaccine does not exceed 86° F
Influenza virus vaccine	2°-8°C. **Freezing destroys potency.**	Vaccine is good only for the year for which it is manufactured: antigenic composition differs annually.	Clear, colorless liquid.	Shake vial vigorously before withdrawing each dose.
Measles Virus Vaccine, Mumps Virus Vaccine, Rubella Virus Vaccine Measles/Mumps/Rubella-MMR Vaccine, Measles/Rubella-MR Vaccine	Lyophilized form: 2°-8°C, but may be frozen. Protect from light, which may inactivate virus. Diluent: may be stored at room temperature. Reconstituted form: 2°-8°C. Protect from light, which may inactivate virus.	Shelf life: check date on vial or container. Discard reconstituted vaccine after 8 hours.	Reconstituted: clear, yellow solution. Reconstituted vaccine that is cloudy should NOT be used.	Reconstitute just before using. Use only the diluent supplied to reconstitute the vaccine. Protect from light at all times.
Pneumococcal polysaccharide vaccine, polyvalent	2°-8°C. Freezing destroys potency.	Shelf life: check date on vial or container.	Clear, colorless liquid.	Shake vial vigorously before withdrawing each dose.

Vaccine	Recommended Storage Temperature	Duration of Stability**	Normal Appearance	Other
Poliovirus vaccine live oral	Must be stored at <0°C. Because of sorbitol in the vaccine, it will remain fluid at temperatures above -14°C. Refreezing the thawed products is okay (maximum of 10 thaw-freeze cycles), if the temperature never exceeded 8°C and the cumulative time it was thawed was <24 hours.	Shelf life: check date on vial or container.	Clear solution, usually red or pink because of phenol red (pH indicator) it contains.	May have a yellow color if shipment was packed with dry ice. Color changes that occur during storage or thawing are unimportant, provided the solution remains clear.
Poliovirus vaccine inactivated	2°-8°C, **do not freeze.**	Shelf life: check date on vial or container.	Clear suspension that is pink to red because of phenol red (pH indicator) it contains.	Vaccine that contains particulate matter, develops turbidity, or changes in color should NOT be used.
Tetanus and diphtheria toxoids adsorbed (DT, Td)	2°-8°C, **do not freeze**	Shelf life: check date on vial or container.	Turbid and white, slightly gray, or slightly pink suspension.	Shake vial vigorously before withdrawing each dose.
Varicella vaccine live	Lyophilized form: -15°C or colder until ready for injection. Diluent: Store separately at room temperature or in the refrigerator.	18 months from date of manufacture. Check date on package and use the earliest date first.	Reconstituted: clear, yellow solution. Reconstituted vaccine that is cloudy should not be used.	**No freeze thaw cycles are allowed with this vaccine.** Reconstituted form: use reconstituted vaccine immediately. Discard if not used within 30 minutes.

\+ "Ten Commandments of Vaccine Handling & Storage" adapted from the Oklahoma State Department of Health's Epidemiology Bulletin, July 1992

Chart adapted from: *Vaccine Management: Recommendations for Handling and Storage of Selected Biologicals*. Centers for Disease Control and Prevention, May 1996.

* Handling instructions for new vaccines may differ from those for products listed in the table. Also, any changes in the formulation of currently available immunizing agents may alter their appearance, stability, and storage requirements.

If you have questions about the condition of the material at the time of delivery, you should: 1) immediately place material in recommended storage; and 2) Notify the Quality Control office of the vaccine manufacturer; or 3) Notify the Center for Immunization, Maryland Department of Health and Mental Hygiene at (410) 767-6679.

** Always adhere to manufacturer's package insert and expiration date located on the package or vial.

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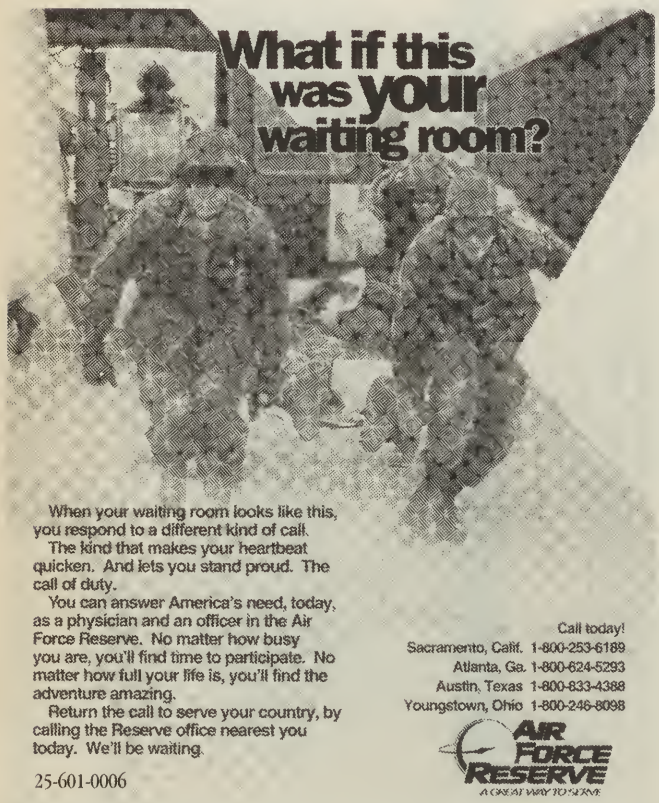
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More than half of the women interviewed reported not using a condom at last intercourse with a main partner. One-third reported not using a condom at last intercourse with a casual partner. Failure to use condoms, particularly with main partners, leaves these women vulnerable to sexually transmitted diseases (STDs), including HIV infection. **Health care practitioners should emphasize that latex condoms are the only contraceptive proven effective against HIV infection and that when used consistently and correctly they are highly effective for both disease and pregnancy prevention.** Findings also indicate that condoms are being used in conjunction with other contraceptive methods by substantial numbers of women, especially with casual partners. A dual-method approach (e.g., hormonal contraception plus condoms) for pregnancy and disease prevention may be feasible for some women at risk for both unintended pregnancy and STDs. Some women at risk, however, may find that using the single method of latex condoms consistently and correctly for the dual purpose of pregnancy and disease prevention is more acceptable. Additional strategies are needed to protect more women who are at risk for both unintended pregnancy and disease (*MMWR* 1996;45:820–823).

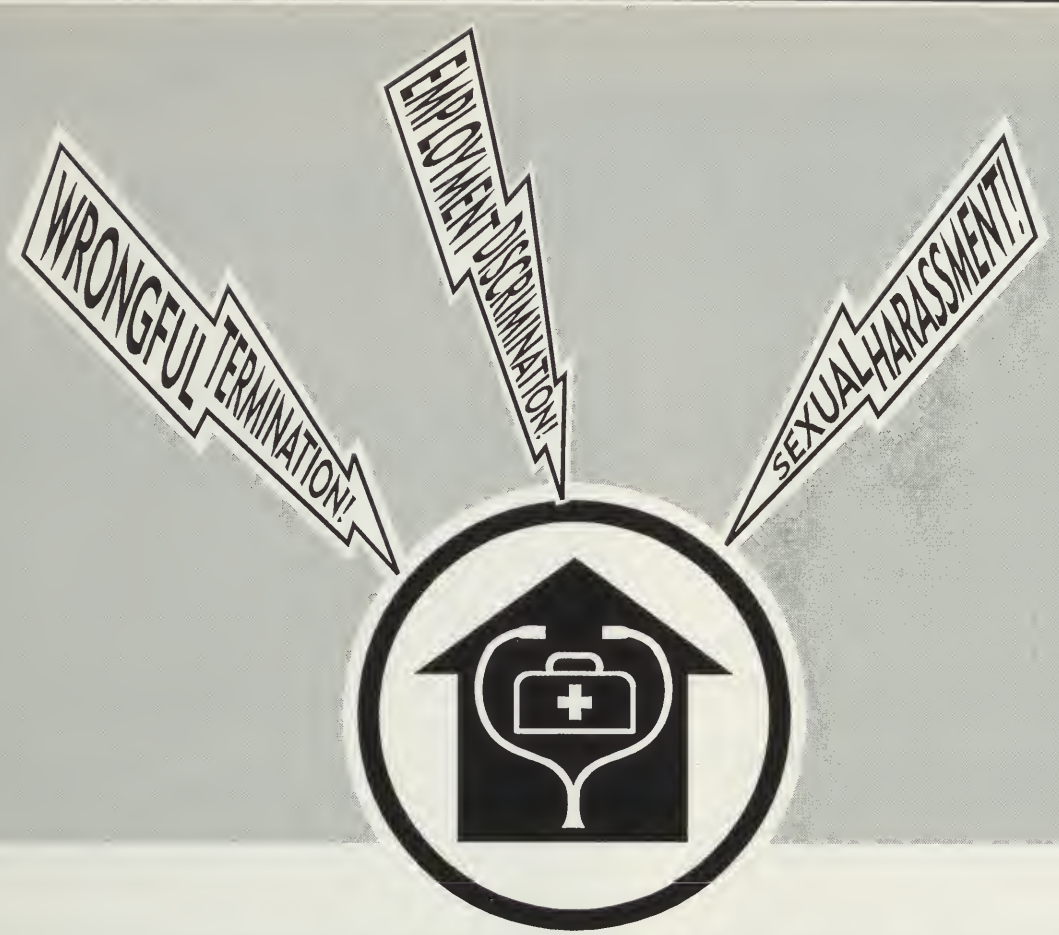
Temperature is a critical factor in thermal injury. Contact with temperatures in the range of steam radiators can cause an instantaneous full-thickness burn of adult human skin. Children's skin is probably more susceptible than that of adults to thermal injury. In comparison, hot water radiators operate at a lower temperature than steam radiators and present a lower risk for thermal injury. **Risks for burns from home radiators can be reduced by keeping the unit covered and the pipes insulated. In addition, beds, couches, and chairs should be kept at a safe distance from radiators to avoid contact burn injury.** Community recognition of steam radiator burns may prompt investigations and improvement of heating systems, preventing burn injury (*MMWR* 1996;45:814–815).

Ehrlichiosis is an emerging tickborne infectious disease caused by obligate intracellular, gram-negative rickettsia that infect leukocytes. Human monocytic ehrlichiosis (HME) is caused by *Ehrlichia chaffeensis* and is believed to be transmitted by *Amblyomma americanum* (the Lone Star tick). Most HME cases have been reported in southeastern and southcentral states. From May to July 1994, five cases of serologically confirmed HME were identified among residents of Maryland. All five persons lived near the Chesapeake Bay and had antecedent histories of tick exposure. **HME, HGE, and RMSF should be considered in the differential diagnosis of febrile patients with generalized illness who reside, work, or vacation in tick-endemic areas and who have histories of tick exposure. These tickborne infections may be associated with thrombocytopenia, elevated hepatic enzymes, and CSF pleocytosis, and should be included in the differential diagnosis of patients with suspected influenza, viral hepatitis, aseptic meningitis, and cholecystitis** (*MMWR* 1996;45:798–802).

Parkinson's disease is one of the most common neurologic disorders. After a period, usually about five years, many patients lose the effect of oral therapy and become disabled. **A number of surgical abolition procedures have been developed and others are being investigated. This article discusses the various operations and the rationale of their special indications.** Pallidotomy and thalamotomy are presently covered by health insurance carriers; other procedures considered more experimental at this time are not. Functional stereotactic surgery for advanced disease seems an especially hopeful measure, but its long-term results are yet to be determined. (*Am Fam Physician* 1996;54:1621–1629).

Effectiveness of intranasal ipratropium bromide therapy for the alleviation of the symptoms of the common cold, in previously healthy patients 14 to 56 years of age, which had lasted no more than 36 hours, were compared with those treated with a control spray of buffered saline solution and those who received no therapy (*Arch Intern Med* 1996;156:1293–1297). Ipratropium bromide recipients had 26% less nasal discharge than the control patients and 34% less than the untreated. Severity of rhinorrhea as judged subjectively by those receiving the ipratropium bromide spray was reduced 31%, and 78% when compared to the other group. Sneezing was also reduced in the ipratropium bromide group, but blood-tinged mucous and dryness were increased. Overall, intranasal ipratropium bromide was found to provide specific relief of rhinorrhea and sneezing associated with common colds.

Rodeos are popular sporting events in the southern and western United States, and bull riders sustain 37% of all rodeo-related injuries—more than participants in any other rodeo event. In competitive bull riding, the rider holds, with one hand, a braided rope wrapped around the bull's midsection. The rope is not tied; the rider's grip on the rope keeps the rider on the bull. Riders must remain on the bull for eight seconds, during which their free hand cannot touch the bull, themselves, or the rope. Because riders and bulls are matched by random draw, injuries are more likely to occur when a less experienced rider draws a high-spirited animal. A 14-year-old boy who had ridden a bull three times previously was thrown to the ground while riding; he struck his head and was then trampled. He sustained a brain stem contusion and an incomplete C2 spinal cord injury and was unconscious for 16 days. He remained in a persistent vegetative state (i.e., dependent and no meaningful responsiveness) on discharge from an acute-care facility 24 days after he was injured. A 17-year-old boy with three years of riding experience struck his head against a bull's head while riding. He sustained a brain injury and multiple nasal fractures and was unconscious for five days. He was not wearing protective equipment. Emergency medical services (EMS) was present. After 40 days in acute care, he had pronounced cognitive and behavioral impairments. **Such cases indicate the need for assessing the effectiveness of existing equipment, recommendations for its use in bull riding, and the need for new equipment, graduated competition, and the matching of bulls with the skill levels of riders. To reduce the impact of injuries, adequate emergency medical care and transportation should be required for all rodeo events** (*MMWR* 1996:45:796–798).



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Tax-Free High Yield	★★★★★	★★★★★	★★★★★	★★★★★
California Bond	★★★★	★★★★★	★★★★★	★★★
Florida Insured Intermediate	★★★★	★★★★	—	—
Georgia Bond	★★★★	★★★★	—	—
Maryland Bond	★★★★	★★★★	★★★★	—
Maryland Short	★★★★★	★★★★★	—	—
New Jersey Bond	★★★★	★★★★	★★★★	—
New York Bond	★★★★	★★★★	★★★★★	★★★
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